CURRENT AFFAIRS
11th Sep. To 20th Sep. 2016

Extension of contract between India and the International Seabed Authority for exploration of Polymetallic Nodules

The Government has approved the extension of contract between Ministry of Earth Sciences, Government of India and the International Seabed Authority (ISA) for exploration of Polymetallic Nodules for a further period of 5 years (2017-22).

By extending the contract, India's exclusive rights for exploration of Polymetallic Nodules in the allotted Area in the Central Indian Ocean Basin will continue and would open up new opportunities for resources of commercial and strategic value in area beyond national jurisdiction. Further, it would provide strategic importance for India in terms of enhanced presence in Indian Ocean where other international players are also active.

Polymetallic nodules

- Polymetallic nodules were discovered at the end of the 19th century in the Kara Sea, in the Arctic Ocean off Siberia (1868). During the scientific expeditions of the H.M.S. Challenger (1872–76), they were found to occur in most oceans of the world.
- Polymetallic nodules, also called manganese nodules, are rock concretions formed of concentric layers of iron and manganese hydroxides around a core.
- They are potato-shaped, largely porous nodules found in abundance carpeting the sea floor of world oceans in deep sea.
- Nodules vary in size from tiny particles visible only under a microscope to large pellets more than 20 centimetres across.
- They can occur at any depth, but the highest concentrations have been found between 4,000 and 6,000m
- Besides manganese and iron, they contain nickel, copper, cobalt, lead, molybdenum, cadmium, vanadium, titanium, of which nickel, cobalt and copper are considered to be of economic and strategic importance.
- Examples of nodules: small test (shell) of microfossil (radiolarian or foraminifer), a phosphatized tooth of shark, basalt debris or even fragments of earlier nodules.
- India is presently having an area of 75,000 sq.km., located about 2000 km away from her southern tip for exploration of PMN.

FORMATION OF THESE NODULES:

- A hydrogenous process in which concretions are formed by slow precipitation of the metallic components from seawater. This is thought to produce nodules with similar iron and manganese content and a relatively high grade of nickel, copper and cobalt.
- A diagenetic process in which the manganese is remobilized in the sediment column and precipitates at the sediment/water interface. Such nodules are rich in manganese but poor in iron and in nickel, copper and cobalt.
- A hydrothermal process, in which the metals derive from hot springs associated with volcanic activity.
- A halmyrolitic process, in which the metallic components come from the decomposition of basaltic debris by seawater.

- A biogenic process, in which the activity of microorganisms catalyzes the precipitation of metal hydroxides.

India signed a 15 year contract for exploration of Polymetallic Nodules (PMN) in Central Indian Ocean Basin with the International Seabed Authority (ISA) (an Institution set up under the Convention on Law of the Sea to which India is a Party) on 25th March, 2002.

The International Seabed Authority

- The International Seabed Authority is an autonomous international organization.
- There are one hundred and sixty eight (168) members.
- The ISA organizes, regulates and control all mineral (non-living resources) related activities in the international seabed area beyond the limits of national jurisdiction.
- It functions under the aegis of the United Nations Convention on Law of the Sea (UNCLOS).
- The headquarters of ISA is located at Kingston, Jamaica.

India-Swiss BTA

Government has given its approval for signing of the Technical Arrangement between India and Switzerland on the identification and return of Swiss and Indian Nationals and its implementation.

Bilateral Technical Arrangement (BTA) has been linked to the Visa Free Agreement for holders of Diplomatic passports as a package deal.

The BTA essentially **aims** to formalize the existing procedure for cooperation on the return of **irregular migrants** between the two countries. The estimated number of irregular migrants in Switzerland who are thought to be from India is less than 100. The BTA with Switzerland would offer an opportunity to use the same as a model template for negotiations on the subject with other EU countries, which have been raising the issue regularly.

It would also help to leverage the Readmission Agreement to liberalize visa and work permit regimes for legitimate Indian travelers. This has been envisaged as a key goal in the recently concluded India-EU Common Agenda on Migration and Mobility (CAMM).

Cabinet approves creation of GST Council and its Secretariat

Setting up of GST Council and setting up its Secretariat as per the following details:

(a) Creation of the GST Council as per Article 279A of the amended Constitution.
(b) Creation of the GST Council Secretariat, with its office at New Delhi.
(c) Appointment of the Secretary (Revenue) as the Ex-officio Secretary to the GST Council.
(d) Inclusion of the Chairperson, Central Board of Excise and Customs (CBEC), as a permanent invitee (non-voting) to all proceedings of the GST Council.
(e) One post of Additional Secretary to the GST Council in the GST Council Secretariat (at the level of Additional Secretary to the Government of India), and four posts of Commissioner in the GST Council Secretariat (at the level of Joint Secretary to the Government of India).

Functions of the GST Council: These include making recommendations on:

(i) Taxes, cesses, and surcharges levied by the centre, states and local bodies which may be subsumed in the GST.

(ii) Goods and services which may be subjected to or exempted from GST.
(iii) Model GST laws, principles of levy, apportionment of IGST and principles that govern the place of supply.
(iv) The threshold limit of turnover below which goods and services may be exempted from GST.
(v) Rates including floor rates with bands of GST.
(vi) Special rates to raise additional resources during any natural calamity.
(vii) Special provision with respect to Arunachal Pradesh, Jammu and Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Himachal Pradesh and Uttarakhand.

Initiation of the Third Phase of Technical Education Quality Improvement Programme (TEQIP)

The Cabinet Committee on Economic Affairs has approved the proposal for initiation of the Third Phase of Technical Education Quality Improvement Programme (TEQIP).

The Project will be implemented as a 'Central Sector Scheme' with total project outlay of Rs. 3600 crore. However, the project would be initiated with a cost of Rs. 2660 crore, with the possibility of additional financing of Rs. 940 crore at later stage. Out of the Rs.2660 crore, the Central share will be Rs.1330 crore and external assistance from the World Bank through International Development Association (IDA) Credit of Rs. 1330 crore ($ 201.50 million as first tranche).

The project will be implemented with the facility of Direct Funds Transfer to the accounts of beneficiary institutes. The project will be initiated in the current year and will be co-terminus with Fourteenth Finance Commission (FFC) i.e. 2019-20.

Project aims:

- Better academic standards, through accreditation, filling up faculty positions, training faculty in better teaching methods, improved research outputs in institution in Focus States/UTs.
- Better administration of the institutions with improved financial/academic autonomy.
- Better systems for assessment of Student Learning, higher transition rates.
- Transparent and expeditious release of funds to institutes by way of Direct Funds Transfer (DFT) System.
- An estimated 200 Government / Government aided engineering institutes and Affiliating Technical Universities (ATUs) including the Centrally Funded Technical Institutions (CFTIs) will be selected.

The project will cover all Government / Government aided engineering institutes, ATUs and CFTIs from Focus States/UT. The Focus States are 7 Low Income States (Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Rajasthan and Uttar Pradesh), 3 Hill States (Himachal Pradesh, Jammu & Kashmir and Uttarakhand), 8 North-Eastern States (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura) and Union Territory of Andaman and Nicobar Islands.

Background:

The Technical Education Quality Improvement Programme (TEQIP) commenced in 2003 with World Bank assistance as a long term programme to be implemented in three phases. The first phase of TEQIP commenced in 2003 and ended on March 31st, 2009. It covered 127 institutes across 13 States including 18 Centrally Funded Technical Institutions (CFTIs). TEQIP-II commenced in August 2010, covering 23 States/Union Territories (UTs) and 191 Institutes (including 26 CFTIs). TEQIP-II is scheduled to conclude in October, 2016. Both projects have had a positive impact on the infrastructure and educational standards in

the technical institutions where they were taken up. Institutions in the central, eastern and north-eastern region and hill States are at present in need of similar and specific interventions.

Arunachal Pradesh's first Pradhan Mantri Jan Aushadhi Store inaugurated

Arunachal Pradesh first Pradhan Mantri Jan Aushadhi Store at Naharlagun, Itanagar. The Government has decided to open 3,000 Stores under Pradhan Mantri Jan Aushadhi Yojana (PMJAY) during 2016-2017 and to reinvigorate the supply of generic drugs.

Jan Aushadhi scheme is being implemented in the country through Bureau of Pharma PSUs of India (BPPI) under the administrative control of Ministry of Chemicals and Fertilizers. 423 Jan Aushadhi Stores are functional across the country.

In order to promote the campaign of Pradhan Mantri Jan Aushadhi Yojana, a one-time financial assistance to the extent of Rs.2.50 Lakh (Rs 1 Lakh for furnishing, Rs 50000/- for computer and peripherals, Refrigerator etc and another Rs 1 Lakh worth medicines to commence operations) is given to those who open shops in Government Hospitals and also to those who are individual entrepreneurs, NGOs, Charitable Trusts etc.

With the aim of making generic medicines more accessible and available to the public at large and to the poor in particular, the following steps are being taken under the scheme:

- Make quality the hallmark of medicine availability in the country, by ensuring, access to quality medicines through the CPSU supplies.
- More than 500 medicines will be available under the scheme.
- The medicines will be tested by the National Accreditation Board for Testing and Calibration Laboratories (NABL).
- Extend coverage of quality generic medicines under the budget to redefine the treatment cost per person. The budget outlay for Jan Aushadhi stores is around Rs.35 crore.
- To make generic drugs available to every strata of the society; the poor as well as the rich.
- This campaign will not be restricted to Public Health System. The Private Sector will also be encouraged to participate with zeal and conviction for maximum coverage to the most remote locations in India.
- Create an awareness drive among the people about the generic medicines and their potency in spite of their lower prices.
- Encourage doctors to prescribe unbranded generic medicines.
- Enable substantial savings in health care, particularly in the case of poor patients and those suffering from chronic ailments requiring long periods of drug use.
- To open Jan Aushadhi stores across India to ensure availability of unbranded quality generic medicines at lower prices.
- The stores will be opened in Government hospitals and other suitable places with easy accessibility.
- The storeowners will also be able to buy the medicines at 16% discount, which will be a profit for them.
- To help other under-developed and developing nations in the common goal of improved quality of affordable healthcare through the model created.

Generic Medicines

- Generic drugs are drugs with the same chemical composition as its equivalent with an advertised brand name.
- It is basically the chemical name of a drug.
- It is comparable to its counterpart with a brand name in dosage, strength, quality and performance.
- Without the brand name, generic medicines are available at a lesser price.
- It goes without saying that when a generic drug is made available in the market, the cost of the same medicines under a brand name also drop substantially.
- Generic drugs can be legally produced in India after the patent time period of 20 years has elapsed.
- The expiration of a patent removes the monopoly of the patent holder on drug sales licensing.

Establishment of Higher Education Financing Agency

Higher Education Financing Agency (HEFA) to give a major push for creation of high quality infrastructure in premier educational institutions.

The HEFA would be jointly promoted by the identified Promoter and the Ministry of Human Resource Development (MHRD) with an authorised capital of Rs.2,000 crore. The Government equity would be Rs.1,000 crore.

The HEFA would be formed as a Special Purpose Vehicle within a PSU Bank/ Government-owned-NBFC (Promoter). It would leverage the equity to raise up to Rs. 20,000 crore for funding projects for infrastructure and development of world class Labs in IITs/IIMs/NITs and such other institutions.

The HEFA would also mobilize CSR funds from PSUs/Corporates, which would in turn be released for promoting research and innovation in these institutions on grant basis.

The HEFA would finance the civil and lab infrastructure projects through a 10-year loan. The principal portion of the loan will be repaid through the 'internal accruals' (earned through the fee receipts, research earnings etc) of the institutions. The Government would service the interest portion through the regular Plan assistance.

All the Centrally Funded Higher Educational Institutions would be eligible for joining as members of the HEFA. For joining as members, the Institution should agree to escrow a specific amount from their internal accruals to HEFA for a period of 10 years. This secured future flows would be securitised by the HEFA for mobilising the funds from the market. Each member institution would be eligible for a credit limit as decided by HEFA based on the amount agreed to be escrowed from the internal accruals.

Model Guidelines on Direct Selling

Model guidelines on direct selling had been formulated and sent to State Governments. It is envisaged in the guidelines that the State Governments will set up a mechanism to monitor/ supervise the activities of Direct Sellers, Direct Selling Entity regarding compliance of the guidelines for Direct Selling.

Any direct selling entity conducting direct selling activities shall submit an undertaking to the Department of Consumer Affairs within 90 days, stating that it is in compliance with these guidelines and shall also provide details of its incorporation.

Key highlights of the guidelines

• In the guidelines, the Union Government has clearly defined legitimate direct selling and differentiates it from pyramid and money circulation schemes to help investigating agencies identify fraudulent players.

• Direct selling means marketing, distribution and sale of goods or providing of services as a part of network of direct selling other than under a pyramid scheme.

• Pyramid Scheme has also defined in the framework. Money Circulation Scheme has the same meaning as defined under Prize Chits and Money Circulation Schemes (Banning) Act, 1978.

• To conduct direct selling business, the guidelines have prescribed many conditions that need to be complied within 90 days.

• The guidelines bar direct selling companies from charging any entry fee from agents or compelling them to buy back unsold stocks. These entities will have to enter into an agreement with direct sellers or agents, and give full refund or buy-back guarantee for goods and services sold to them.

• The guidelines also mandate direct sellers to constitute a grievance redressal committee to protect consumers' right.

• The guidelines have also made provision for appointment of monitoring authority at both Central and state level to deal with the issues related to direct selling.

• They also prohibit direct selling entities from using misleading and deceptive or unfair recruitment practices.

• The guidelines have also put conditions for contract between direct sellers and direct selling entity, saying that all such agreements should be in writing describing the material impact of the participation.

• The agreement should not compel or induce the direct seller to purchase goods or services in an amount that exceeds an amount that can be expected to be sold to consumers within a reasonable period of time.

• The contract should provide direct sellers a reasonable cooling-off period in which they can cancel it and receive a refund for goods and services purchased.

• The guidelines have also specified certain obligations of direct sellers such as carrying identity card, and full disclosure of the good and services offered by the entity represented by them.

• The new guidelines mandate a seller to provide information about the name of the purchaser and seller, delivery date of goods, procedure of its return and its warranty.

Leaders of BRICS countries to discuss urban transition in Visakhapatnam to evolve common agenda for HABITAT-III Conference

The conference discussed and evolved a common agenda for BRICS (Brazil, Russia, China, India and South Africa) countries to be presented at the HABITAT-III Conference to be held in Quito, Eucador.

Other issues discussed were development of smart cities, financing urban infrastructure, inclusive housing, Climate change, regional planning, water and sanitation management and new reforms for urban renaissance.

India currently holds the chairmanship of BRICS and has chosen **'Building Responsive, Inclusive and Collective Solutions'** as the theme for this year and the BRICS Summit will be held in Goa in October this year.

"The underlying rationale of cooperation on urbanization between BRICS countries was to share urban knowledge, develop mechanisms for peer to peer exchange, promote evidence based policy making and learn useful lessons from individual experience of urban transition".

BRICS nations account for over 3 billon population constituting 53.40% of world's population, 23.10% of global GDP and 26.70% of world's geographical area, spread over four continents.

Range of urbanization varies from 84% in Brazil, 73% in Russia, 64% in South Africa, 57% in China and 32% in India.

BRICS Urbanization Forum

Placing water and sanitation management in urban areas among the most daunting challenges in the context of rapid urbanisation, BRICS countries have called for a 'zero waste' policy through reuse and recycling in a focussed manner.

Participating in a discussion on 'Resilient Water and Sanitation Management' at the BRICS Urbanisation Forum in Visakhapatnam, Andhra Pradesh, policy makers and experts from the member countries stressed on waste reduction and reuse.

China has showcased the city of Shenzen where in only 6% of municipal solid waste is being dumped in the open and daily 2,10,000 tonnes of municipal solid waste is being recycled to generate 4,300 MW of electricity. Waste-to-energy conversion of the city has been substantially enhanced since 1988 when only 150 tonnes of such waste was converted into power and 94% of solid waste being generated in Chinese cities is being recycled.

There is a need to step up the capacities of cities to ensure such zero waste approach.

Chennai is a leading example of resilience in water management being the first city in the country to set up a desalination plant enabling use of 200 million litres of sea water per day. Rain water harvesting is ensured in all the buildings in the city to meet water needs of citizens, he said. Tamil Nadu Government is taking measures to supply 240 million litres of Treated Reusable Water per day to industrial units which could give more revenues than the income from supply of regular water.

Brazil called for proper date generation by cities to ensure effective water and sanitation management besides involvement of people in these critical areas.

Only 1% of readily usable water is available for use of humanity with 97% of water being in seas and another 2% being locked up in deep acquifers, South Africa called for adoption of appropriate technologies and response mechanisms to meet water needs of people, a holistic approach to water management given the linkages with various other utilities.

The Government of India, under different new urban missions has launched concerted efforts to ensure proper water supply and management in urban areas.

There was unanimous call for augmenting the capacities of cities to promote effective urban planning and management besides ensuring wider participation of people in urban affairs, expressing concern over the growing slums and informal settlements in urban areas called for ensuring liveable and sustainable human settlements in urban areas.

The BRICS nation stressed on ensuring urban renaissance to stimulate economic growth besides enabling decent living for all sections of the society. Ministry of Urban Development informed that urban renaissance in India are based on the five pillars of **empowering urban local bodies, citizen participation, capacity building of stakeholders, effective urban planning and augmenting financial resources of cities and towns.**

BRICS ENVIRONMENT MINISTERS MEET, GOA

The Environment Ministers of BRICS countries agreed on a Memorandum of Understanding and announced setting up of a Joint Working Group, institutionalizing their mutual cooperation on environment-related issues.
The Ministerial Declaration highlights key agreements, which were adopted with mutual consensus. The areas agreed for mutual cooperation are - **abatement and control of air and water pollution, efficient management of liquid and solid waste, climate change and conservation of biodiversity**.
Technology transfer and finance are two issues that need to be addressed to achieve goals and BRICS has a major role to play and is a global idea. There was some agreement on areas such as air quality, water management and solid waste management in the meeting. The Environment Ministers particularly emphasised that it is essential to preserve water bodies.
The BRICS countries resolved to set up a platform for innovations, knowledge sharing and capacity building including a common website, network of technical institutions and undertake joint projects in areas of mutual interest.

The BRICS nations also reaffirmed their commitment to the Principles of Rio Declaration on Environment and Development, 1992 including Equity and Common But Differentiated Responsibilities (CBDR).

Brazil, Russia, India, China and South Africa, comprising BRICS block together accounts for 41.6% of global population, 29.31 % of total world's territory and about 22% of world's total GDP have rich biodiversity and natural capital. The choices made by the BRICS countries have a global significance.

Meeting of the BRICS High Representatives Responsible for National Security

1. BRICS focused on important global issues, security issues such as Counter Terrorism, Cyber Security and Energy Security. They also exchanged assessments of recent developments in the West Asia and North Africa (WANA) region.
2. In the area of Cyber Security/Information Security they agreed to strengthen joint efforts on enhancing cyber security by sharing of information and best practices, combating cyber-crimes, improving cooperation between technical and law enforcement agencies including joint cyber security R&D and capacity building.

3. The High Representatives encouraged cooperation and exchanging of best practices, expertise, information and knowledge on Counter Terrorism issues. They also agreed to expand BRICS Counter Terrorism cooperation further to include measures for denying terrorists access to finance and terror-

hardware such as equipment, arms and ammunition. They underscored the need for a global legal regime to deal with the global menace of terrorism.

4. They also agreed to explore regular energy dialogue between BRICS countries in order to discuss long-term and medium-term energy security issues.
5. Resolution of disputes in the WANA region through dialogue peaceful means and in accordance with international law and the principles of the UN charter, BRICS High Representatives also agreed to pool BRICS' efforts to counter terrorism and violent extremism emanating from the region.
6. The High Representatives concurred on a BRICS Forum to progressively consolidate cooperation and exchanges among respective agencies in security related fields.

WANA

The West Asia North Africa (WANA) region, with Morocco in the west, Pakistan and Afghanistan in the east, Turkey in the north, and Ethiopia and Sudan in the south, is characterized by high population growth, low and erratic rainfall, limited arable land, and severely limited water resources.

The west Asia-north Africa (WANA) region is at the centre of this global crisis. The region is of great strategic importance as the intermediary meeting-point of Eurasia. As well as being home to the world's greatest concentration of energy reserves, it also represents an arc of crisis; from Casablanca to Malacca, this is one of the most populous and poor and arguably the most volatile region of the world.

It comprises 27 countries with almost 600 million inhabitants. The region has been at conflict since the collapse of the Ottoman Empire and notably after the creation of Israel.

Region has seen rise of terrorism, Israeli-Palestinian conflict, Iran-Saudi Arabia proxy conflict, conflict between Arabs and Berbers. It also has achieved its highest peaks at the 21st century in terms of security scenario such as US intervention of Iraq in 2003, rise of IS, Arab Spring that spread civil wars like situations in the whole region such as Syrian Civil War, Libyan Civil War, Iraq War and Yemeni Civil War.

Major Initiative for R&D into Next Generation HFC refrigerant alternatives

The Ministry of Environment, Forest and Climate Change (MoEFCC) announced an ambitious collaborative R&D programme to develop next generation, sustainable refrigerant technologies as alternatives to HFCs.

This R&D initiative brings together Government, research institutes, industry and civil society to develop long term technology solutions to mitigate impact of currently used refrigerant gases on the ozone layer and climate. With this initiative, India reaffirms its commitment to working with all other nations to safeguard the Earth's natural ecosystem.

Some of the key players of the initiative include the Council of Scientific & Industrial Research and its allied institutions; Department of Science and Technology; Centre for Atmospheric & Oceanic Sciences; as well as key industry players in the sector.

India has a small carbon footprint at citizen level and its sustainable lifestyle results in low contribution of the country to overall emissions of greenhouse gases and ozone depleting substances, as compared with other developed countries. However, there is an urgent need for developing new technologies indigenously as alternatives available today are patented apart from being expensive. A research based programme to look for cost effective alternatives to the currently used regfrigerant gases is, therefore essential.

The initiative is a significant step forward in line with India's national focus on research, innovation and technology development and Mission Innovation. The research initiative of the Ministry will be led by the CSIR's Indian Institute of Chemical Technology, Hyderabad. The MoEF&CC, along with the Department of Science and Technology (DST), Council of Scientific & Industrial Research (CSIR) has also decided to create a corpus fund for this research programme, with Industry also committing to contribute to the effort.

The collaboration of research institutes as well as industry will create larger ecosystem for developing sustainable solutions, and eventually deploying low global warming potential - GWP HFCs on a national scale. By establishing an effective collaboration between all important stakeholders, the initiative is focused on prioritising areas of research in new refrigerant technologies and natural refrigerants. This shall help the country leapfrog from the current technology high GWP HydroFluoroCarbons or HFCs to technologies with lower climate impact.

PMGSY to focus on Maintenance of Roads and Financial Incentives

Punjab, Haryana, Gujarat and Karnataka are the four States in the country, which have achieved the target of construction of rural roads under PMGSY, before the target year of 2019, for connecting all un-connected habitations with all-weather roads.

The Ministry of Rural Development is planning to give a financial incentive of 5 percent to the best performing States for maintenance of roads and it is estimated that the government will earmark Rs 1200 crore for this purpose.

There are 8 to 9 States in the country which are building standard and durable rural roads well before the scheduled target. The Minister informed that so far 15 State governments have notified the State Rural Road Maintenace Policy and appealed to other states to complete this process in coming one to two months so that third phase of PMGSY can be rolled out.

Between the years 2011-2014, 73 Kilometers of rural roads were built daily under PMGSY, while between 2014 to 2016, it has increased to 100 kilometers per day and this year up to 140 kilometers of roads are being built each day. 15 percent of rural roads built under PMGSY are using Green technologies like cold mix, fly ash, geo-textiles, plastic and other waste materials. In the year 2000 to 2014, only 800 kilometers of rural roads were built using green technologies, while from 2014 to 2016 more than 2600 kilometers of roads were built under this alternative mechanism.

PRADHAN MANTRI GRAMIN SADAK YOJANA

- Pradhan Mantri Gram Sadak Yojana (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.

Task Force on Innovation

Innovation is widely recognized as a central driver of economic growth and development. **The Global Innovation Index (GII) aims** to capture the multi-dimensional facets of innovation.

India's ranking in GII-2016 jumped 15 places to 66th position. Aiming to strengthen the eco-system of innovation in the country, and thereby further improve India's ranking in GII, the Department of Industrial Policy & Promotion has decided to set up a Task Force on Innovation.

Global Innovation Index (GII) 2016 was recently launched in which India has retained the top rank in Information and Communication Technology Service Export for more than last three years.

India is the top-ranked economy in Central and Southern Asia, and shows particular strengths in tertiary education and R&D, including global R&D intensive firms, the quality of its universities and scientific publications.

India also over-performs in innovation relative to its GDP. India ranks second on innovation quality amongst middle-income economies.

As per the report, "India is a good example of how policy is improving the innovation environment". India moved up across all indicators within the Knowledge Absorption sub-pillar. It has also exhibited a solid performance in the GII model's newly incorporated research talent in business enterprise, where it ranks 31st.

International Day for the Preservation of the Ozone Layer

16 September

2016 Theme: Ozone and climate: Restored by a world united."

In 1994, the UN General Assembly proclaimed 16 September the International Day for the Preservation of the Ozone Layer, commemorating the date of the signing, in 1987, of the Montreal Protocol on Substances that Deplete the Ozone Layer.

The ozone layer, a fragile shield of gas, protects the Earth from the harmful portion of the rays of the sun, thus helping preserve life on the planet.

The phase out of controlled uses of ozone depleting substances and the related reductions have not only helped protect the ozone layer for this and future generations, but have also contributed significantly to global efforts to address climate change; furthermore, it has protected human health and ecosystems by limiting the harmful ultraviolet radiation from reaching the earth.

The theme for this year's International Ozone Day recognizes the collective efforts of the parties to the Vienna Convention and the Montreal Protocol towards the restoration of the ozone layer over the past three decades and the global commitment to combat climate change.

MONTREAL PROTOCOL:

- In 1985 the Vienna Convention established mechanisms for international co-operation in research into the ozone layer and the effects of ozone depleting chemicals (ODCs). 1985 also marked the first discovery of the Antarctic ozone hole. On the basis of the Vienna Convention, the Montreal Protocol on Substances that Deplete the Ozone Layer was negotiated and signed by 24 countries and by the European Economic Community in September 1987. The Protocol called for the Parties to phase down the use of CFCs, halons and other man-made ODCs.
- The Montreal Protocol was agreed on 16 September 1987 and entered into force on 1 January 1989.
- The Montreal Protocol on Substances that Deplete the Ozone Layer was designed to reduce the production and consumption of ozone depleting substances in order to reduce their abundance in the atmosphere, and thereby protect the earth's fragile ozone Layer.
- The Montreal Protocol on Substances that Deplete the Ozone Layer is one of the first international environmental agreements that includes trade sanctions to achieve the stated goals of a treaty. It also offers major incentives for non-signatory nations to sign the agreement.

- The Montreal Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere--chlorofluorocarbons (CFCs), halons, carbon tetrachloride, and methyl chloroform--are to be phased out by 2000 (2005 for methyl chloroform).
- Scientific theory and evidence suggest that, once emitted to the atmosphere, these compounds could significantly deplete the stratospheric ozone layer that shields the planet from damaging UV-B radiation.
- Man-made chlorines, primarily chloroflourobcarbons (CFCs), contribute to the thinning of the ozone layer and allow larger quantities of harmful ultraviolet rays to reach the earth.

VIENNA CONVENTION

- The **Vienna Convention for the Protection of the Ozone Layer** is a Multilateral Environmental Agreement.
- It was agreed upon at the Vienna Conference of 1985 and entered into force in 1988. In terms of universality, it is one of the most successful treaties of all time, having been ratified by 197 states.
- It acts as a framework for the international efforts to protect the ozone layer. However, it does not include legally binding reduction goals for the use of CFCs, the main chemical agents causing ozone depletion. These are laid out in the accompanying Montreal Protocol.

US and Israel sign $38bn military aid deal

The United States has signed a record $38bn deal to provide Israel with military assistance over a 10-year period - the largest such agreement ever by the US with any country.

Following 10 months of frequently tense negotiations, the two allies finalised the memorandum of understanding (MOU).

Under the terms, Israel will receive $3.8bn a year from the US - up from the $3.1bn Washington currently gives Israel annually under a 10-year deal that ends in 2018.

Under the agreement, Israel's ability to spend part of the funds on Israeli military products will be phased out and eventually all of the money must be spent on American military industries. Israel's preference for spending some internally had been a major sticking point in the deal.

It also includes, for the first time, money for missile defense programs.

India-Afghanistan Joint Statement

India-Afghanistan bilateral development cooperation has led to the completion of major milestones such as Parliament Building and the Afghanistan-India Friendship Dam.

Highlights:

- India pledged one billion dollars for the support and development of Afghanistan.
- Counter-terrorism and strengthen security and defence cooperation as envisaged in the India-Afghanistan Strategic Partnership Agreement.

- The two sides also signed an Extradition Treaty, an agreement on cooperation in civil and commercial matters and a Memorandum of Understanding (MoU) on cooperation in peaceful use of outer space.
- India also helping Afghanistan in capacity and capability building in spheres of education, health, agriculture, skill development, empowerment of women, energy, infrastructure and strengthening of democratic institutions.
- India also proposed to supply world class and easily affordable medicines from India and cooperation in solar energy through mutually agreed instrument.
- Implementation of the trilateral agreement involving Afghanistan, India and Iran, signed in May 2016, using Chahbahar port.

Task force on poverty files report, proposes new panel on BPL

The task force headed by NITI Aayog Vice-Chairman Arvind Panagariya.

The task force has submitted its report and has suggested that a new committee be set up, which in participation with the states and other stakeholders, should work on defining the BPL population and identify them,

The task force was not mandated to work on fixing the poverty line. Its terms of reference included developing a working definition of poverty and coordinating and developing synergy with central ministries and state government task force.
Its main task was to prepare a road map for elimination of poverty as well as suggest strategies and anti-poverty programmes.

According to report:

- To continue with the Tendulkar poverty line.
- Switch to the Rangarajan or other higher rural and urban poverty lines.
- Track progress over time of the bottom 30 per cent of the population.
- Track progress along specific components of poverty such as nutrition, housing, drinking water, sanitation, electricity and connectivity.

According to the paper, the strategy for combating poverty must rest on two points.First, sustained rapid growth i.e. employment intensive. Second, making anti-poverty programmes effective.
Making anti-poverty programmes such as the public distribution system (PDS), mid-day meal scheme, MG NREGA and Housing for All more effective represents the second point of the strategy to eliminate poverty.

Suresh Tendulkar Committee

In 2005, Suresh Tendulkar committee was constituted by the Planning Commission. The current estimations of poverty are based upon the recommendations of this committee. This committee made the poverty line somewhat broad based by considering monthly spending on education, health, electricity and transport also.

It strongly recommended target nutritional outcomes i.e. instead of calories; intake nutrition support should be counted. It suggested that a uniform **Poverty Basket Line** be used for rural and urban region. It recommended a change in the way prices are adjusted and demanded for an explicit provision in the Poverty Basket Line to account for private expenditure in health and education.

Tendulkar adopted the cost of living as the basis for identifying poverty. The Tendulkar panel stipulated a benchmark daily per capita expenditure of Rs. 27 and Rs. 33 in rural and urban areas, respectively, and arrived at a cut-off of about 22% of the population below poverty line. However, this amount was such low that it immediately faced a backlash from all section of media and society. Since the numbers were unrealistic and too low.

the government appointed another committee under Prime Minister's Economic Advisory Council Chairman C. Rangarajan to review the poverty estimation methodology. Brushing aside the Tendulkar Committee **Rangarajan committee** raised these limits to Rs. 32 and Rs. 47, respectively, and worked out poverty line at close to 30%. With estimates of Rangarajan committee, Poverty stood at around 30% in 2011-12. The number of poor in India was estimated at 36.3 crore in 2011-12.

Devendra Jhajharia: Two-time Paralympics gold medalist in javelin

Jhajharia made his international debut in 2002 Asian Games in Busan, South Korea **and bagged his first gold medal at summer paralympic games in Athens in 2004.**
Devendra Jhajharia, Paralympic javelin thrower from India won his second gold medal at the Rio Paralympics in F46 event.
Jhajharia was awarded with prestigious Arjuna award in 2005. The same year, Rajasthan government also felicitated him with Maharana Pratap Puraskar Award.
He also received the fourth-highest civilian honour Padma Shri in 2012 – first paralympian to have received the award. In 2014, FICCI named him the para-sportsperson of the year.
He is also a member of the paralympics committee of Rajasthan.
Jhajharia was born into a low-income family of Churu district in Rajasthan. At the age of eight, he lost his left hand after accidentally touching an electric wire while trying to climb a tree.

DEEPA MALIK

Indian athlete Deepa Malik became the first Indian woman to bag a medal at the Paralympics.
Malik clinched a silver medal in the shotput F-53 event. Her throw of 4.61m was the best in her six attempts. With the win, she confirmed India's third medal from the Rio Paralympics.

About Deepa Malik

• Deepa Malik is an Indian athlete born in Sonipat.

• She is associated with Himalayan Motorsports Association (H.M.A.) and Federation of Motor Sports Clubs of India (F.M.S.C.I.).

• She has done an 8 day, 1700-km drive in sub-zero temperatures which included a climb to 18000 feet.

• She is currently being supported by the GoSports Foundation through their Para Champions Programme.

• She is a member of the working group in the formulation 12th five- year plan (2012-2017) on Sports and Physical Education as nominated by the Planning Commission HRD Division on behalf of the Sports Ministry.

India Signs MoU With Sri Lanka To Support Fishermen And Farmers

India signed MoU with Sri Lanka to support livelihood of the fishing and farming communities by providing them equipment worth USD two million in the country's southern Hambantota district.

The project envisages gift of equipment and tools such as grub hoes, bicycles, life jackets and sewing machines worth 300 million rupees (USD two million) to the fishing and farming communities in Hambantota district.

The project will be implemented on consultation with the Ministry of Fisheries and Aquatic Resources Development and relevant authorities.

China launched its second space station, Tiangong-2

Tiangong-2 the space lab was launched on board of Long March-2F T2 rocket from the Jiuquan Satellite Launch Center in northwestern China's Gobi desert.

This development comes five years after the country launched its first space station, Tiangong-1, in September 2011.

The **objective of the first orbital module Tiangong-1** was to primarily provide a complete testing of the orbital docking technology in different ways. It did allow a short stay of astronauts in the orbit.

Tiangong-2:

- Will allow Chinese astronauts to stay in orbit for 30 days, which is longer than ever before in the history of the Chinese space program.
- The Tiangong-2, whose name means "Heavenly Palace," will be used to test space technology and conduct medical and space experiments.
- Tiangong modules have a mass of about 8,500 kg.
- Tiangong-2 was released from the second stage at nearly 10 minutes into the flight. Then the space laboratory deployed its power-generating solar arrays to start its cruise in low-Earth orbit at an altitude of 244 miles (393 kilometers).
- Together with Tiangong-2, a small satellite named Banxing-2 (BX-2) was also launched on Thursday's mission. The satellite, weighing about 88 pounds (40 kilograms), is equipped with a 25-megapixel camera that will take pictures of the space lab in orbit.

India loses WTO appeal in U.S. solar dispute

India lost its appeal at the World Trade Organization in a dispute over solar power, failing to overturn a U.S. complaint that New Delhi had discriminated against importers in the Indian solar power sector.
The WTO's appeals judges upheld an earlier ruling that found **India had broken WTO rules by requiring solar power developers to use Indian-made cells and modules.** The appeal ruling is final and India will be expected to bring its laws into compliance with the WTO rules.
U.S. solar exports to India have fallen by more than 90 percent since India brought in the rules,

India could not claim exemptions on the basis of that its national solar power sector was included in government procurement, nor on the basis that solar goods were in short supply.
Under WTO rules, countries are not allowed to discriminate against imports and favour local producers.

INDIA's ARGUMENT:

India's national solar programme, which was launched in 2010, aims to "establish India as a global leader in solar energy, by creating the policy conditions for its diffusion across the country as quickly as possible". To incentivise the production of solar energy within the country, the government under the programme agrees to

enter into long-term power purchase agreements with solar power producers, effectively "guaranteeing" the sale of the energy produced and the price that such a solar power producer could obtain. Thereafter, it would sell such energy through distribution utilities to the ultimate consumer. However**, a solar power producer, to be eligible to participate under the programme, is required compulsorily to use certain domestically sourced inputs, namely solar cells and modules for certain types of solar projects**. In other words, unless a solar power producer satisfies this domestic content requirement, the government will not 'guarantee' the purchase of the energy produced.

According to India the measure was justified under the general exceptions since it was necessary to secure compliance with its domestic and international law obligations relating to ecologically sustainable development and climate change.

US ' ARGUMENT:

In 2013, the U.S. brought a complaint before the WTO arguing that the domestic content requirement imposed under India's national solar programme is in **violation of the global trading rules.** Specifically, India has violated its "national treatment" obligation by unfavourably discriminating against imported solar cells and modules. In other words, India was discriminating between solar cells and modules which were otherwise identical on the basis of the national 'origin' of the cells and modules, a clear violation of its trade commitment. India principally relied on the 'government procurement' justification, which permitted countries to derogate from their national treatment obligation provided that the measure was related to "the procurement by governmental agencies of products purchased for governmental purposes and not with a view to commercial resale or use in production of goods for commercial sale".

WTO's Stand:

WTO concluded that India had violated its national treatment obligation, by imposing a mandatory domestic content requirement. The panel found India **violated global trade rules** by imposing local content requirements for solar cells and solar modules.

Agreement's Violated: India violated its commitments under the **global trading rules**, specifically the General Agreement on Tariffs and Trade (GATT) and the Agreement on Trade Related Investment Measures (TRIMs).

Explanation: The product being subject to the domestic content requirement was solar cells and modules, but the product that was ultimately procured or purchased by the government was electricity. Therefore, the domestic content requirement was not an instance of "**government procurement**".

Criticism to India's stand:

There appears to be **no rational basis** for how mandatory local content requirements contribute towards promoting the use of clean energy. If the objective is to produce more clean energy, then solar power producers should be free to choose energy-generation equipment on the basis of price and quality, irrespective of whether they are manufactured locally or not.

It is also argued that by mandatorily requiring solar power producers to buy locally, the government is imposing an **additional cost** for the production of clean energy, which will be ultimately passed on to the ultimate consumer.

EESL Raises Domestic Bonds to Fund Energy Efficiency Projects in India

Energy Efficiency Services Limited (EESL) has made its maiden issuance of bonds in the domestic market to fund energy efficiency projects in India. Domestic bonds worth Rs. 500 crore were issued to investors on private placement basis at a coupon rate of 8.07% per annum. These bonds have been rated AA by ICRA and CARE. The maturity of bonds range from 3.5 to 7 years on STRPP basis. Meanwhile, Trust Investment Advisors is the sole arranger of the issue.

The access to Indian bond markets will be a key milestone for EESL to channelize more investments in the energy efficiency market. For FY 2016-17, the apex requirement of EESL is Rs.3500 crore. Aiding this requirement, these corporate bonds will be the first of many tranches.

EESL is also planning to introduce **Green Masala Bonds** worth USD 100mn (approx. Rs.700 crore) in November. The company has also tied up funding from multi-lateral agencies like KFW, AFD and ADB for funding its energy efficient projects.

Energy Efficiency Services Limited (EESL), a Joint Venture of NTPC Limited, Power Grid Corporation of India Limited (PGCIL), Power Finance Corporation Limited (PFC Limited) and Rural Electrification Corporation (REC), under the administration of Ministry of Power, Government of India, is working towards mainstreaming energy efficiency and is responsible for the world's largest energy efficiency portfolio (worth 13 BLN USD over a period of 4 years).

EESL aims to unlock the energy efficiency (EE) and demand side management (DSM) market valued at Rs. 1.5 Lakh crore, and implement large-scale EE projects. It seeks to create market access, particularly in the public facilities (municipalities, buildings, agriculture, industry etc.), implement innovative business models, handhold private sector Energy Service Companies (ESCOs) in an effort to ensure replication..

EESL has implemented energy efficiency programs in domestic and street lighting, buildings, agriculture, etc. With strong linkages to national policies such as NMEEE, UDAY, 24X7 Power for All, EESL seeks to create market access for energy efficiency, particularly for domestic consumers and public facilities like municipalities, buildings, agriculture, industry, etc.

Ministry of Earth Sciences to chart Strategies and Action Plans

Ministry of Earth Sciences (MoES) in reducing the risk and devastation due to natural hazards in the country and in providing valuable services for socio-economic benefits. The brainstorming session was organized to discuss the on-going scientific programmes, gap areas, vision, future plans and road map for the Ministry. Issues related to the weather forecast, climatology, seismology and oceanography were of major concern.

Various new initiatives taken up by the Ministry as envisaged in the 2030 vision document were on the agenda. These include:

- Developing state-of-the-art multi-hazard early warning systems for natural disasters including Earth Quakes,
- Coastal Hazards, Tsunamis, high ocean waves, urban and flash floods.
- Weather and climate services for the northeast region.
- Marine Observations along Indian Coasts and a Coastal Mission.
- Support the Initiative of Blue Economy by improving ocean services and innovating and developing cutting edge ocean technology for the generation of clean energy from the oceans (waves, currents and thermal gradient) and map the living and non-living resources in the Indian Ocean and prepare the strategies for their sustainable use and harvest.

- Develop deep-sea mining technologies, including a manned submersible, for the exploration and mining of Polymetallic nodules from the central Indian Ocean.
- Strategic investments and research for exploring the Arctic, Antarctic and Himalayas.

PARAM-ISHAN supercomputer launched at IIT, Guwahati

Union Human Resource Development Ministery launched **PARAM-ISHAN** supercomputing facility at IIT, Guwahati. PARAM ISHAN has been jointly developed by IIT Guwahati and C -DAC (Centre for Development of Advanced Computing).

- PARAM-ISHAN has power of 250 Teraflops and three hundred tera bites capacity.
- PARAM-ISHAN can be used in the application areas like Computational Chemistry, Computational Fluid Dynamics, Computational Electromagnetic, Civil Engineering Structures, Nana-block Self Assemble, Optimization etc. North East India receives heavy rainfall during monsoon, which leads to flooding and landslides. PARAM-ISHAN can be used for Weather, climate modeling and seismic data processing.

A **supercomputer** is a computer with a high-level computational capacity compared to a general-purpose computer. Performance of a supercomputer is measured in floating-point operations per second (FLOPS) instead of million instructions per second (MIPS).

Supercomputers play an important role in the field of computational science, and are used for a wide range of computationally intensive tasks in various fields, including quantum mechanics, weather forecasting, climate research, oil and gas exploration, molecular modeling (computing the structures and properties of chemical compounds, biological macromolecules, polymers, and crystals), and physical simulations (such as simulations of the early moments of the universe, airplane and spacecraft aerodynamics, the detonation of nuclear weapons, and nuclear fusion).

Ministry of Agriculture & Farmers Welfare and Ministry of Water Resources, River Development and Ganga Rejuvenation Signed a MoU to Promote Organic Farming on the Banks of River Ganga

The Ministry of Agriculture & Farmers Welfare signed a Memorandum of Understanding (MoU) with Ministry of Water Resources, Water Development and Ganga Rejuvenation to promote organic farming on the banks of river Ganga. According to this agreement, villagers situated on the banks of river Ganga will be encouraged for organic farming.

As per agreement, under the Namami Gange project 1657 gram panchayats situated along the course of river Ganga starting from Uttarakhand to West Bengal, organic farming will be developed in 1657 clusters under the **Paramparagat Krishi Vikas Yojana (PKVY).** Under this project, Ministry of Agriculture along with cluster formation will provide training on Integrated Nutrient Management and micro-irrigation techniques.

To promote organic farming on the banks of river Ganga following measures will be taken:

- Clusters of gram panchayats will be formed, awareness campaigns will be launched and self help groups will be formed.
- Related information will be provided through mobile applications and awareness will be created among the masses about the side-effects of using chemicals, fertilizers and insecticides in farming.
- Initiatives will be taken to promote the improved ways of irrigation for water rejuvenation in Ganga valley.

- Also, organic farming and livestock based livelihood will be promoted on the banks of Ganga river.
- Ministry of Agriculture is promoting organic farming under the Paramparagat Krishi Vikas Yojana throughout the country especially in north-eastern states.

National Conference on Reforms in PDS

States to reform Public Distribution System (PDS) in order to bring transparency(which is a key feature of National Food Security Act (NFSA)).

The significant role played by Central and State Governments in ensuring food security to more than 80 crore eligible beneficiaries under the NFSA, which is implemented in 34 States/UTs.

There is a need to further improve the efficiency and transparency of all operations related to food security i.e. production, procurement, storage, logistics, distribution and nutrition among others.

In order to ensure the timely delivery of quality food-grains and protect consumer rights, the concerned stakeholders to modernize procurement operations, construct scientific storage facilities, implement NFSA and complete the end to end computerization of TPDS operations.

The reduction of inclusion and exclusion errors and Aadhaar validation as the key focus areas so that no eligible beneficiary is denied entitlement under the PDS scheme.

Andhra Pradesh is the first State in the country to automate Fair Price Shops, followed by Madhya Pradesh, Daman & Diu, and Tamil Nadu. Considerable progress has also been achieved in Gujarat, Chhattisgarh and Rajasthan with automated FPSs.

India's Public Distribution System (PDS) is one of the world's largest food security schemes which operates in more than 650 districts across 36 States/UTs through a network of over 5.3 lakh FPSs.

WPI and CPI based inflation

The purpose of a price index:

- The purpose of a price index is to **quantify the overall increase or decrease in prices** of several commodities through a single number.
- The price index is measured at fixed intervals and changes in it are an **indicator of average price movement of a fixed basket of goods and services** (that represent the entire economy).
- Thus, price index is reflective of the **total change in price level paid by a producer or consumer**.

'Wholesale Price Index'

- Wholesale Price Index (WPI) represents the price of goods at a wholesale stage i.e. goods that are sold in bulk and traded between organizations instead of consumers.
- WPI is used as an important measure of inflation in India. Fiscal and monetary policy changes are greatly influenced by changes in WPI.

In India, wholesale price index is divided into three groups:

1. Primary Articles (20.1% of total weight)
2. Fuel and Power (14.9%) and

3. Manufactured Products (65%)

1. **Primary Articles**
   1. Food Articles
   2. Non-Food Articles
   3. Minerals

Food Articles from the Primary Articles Group account for 14.3%of the total weight.

2. **Fuel, Power, Light & Lubricants**
   1. Coal
   2. Mineral oils
   3. Electricity

3. **Manufactured Products**
   1. Food products
   2. Beverages, Tobacco and Tobacco Products
   3. Textiles
   4. Leather and leather products
   5. Wood and wood products
   6. Paper and paper products
   7. Rubber and plastic products
   8. Chemicals & chemical products and
   9. Several others.

The most important components of the Manufactured Products Group are Chemicals and Chemical products (12% of the total weight); Basic Metals, Alloys and Metal Products (10.8%); Machinery and Machine Tools (8.9%); Textiles (7.3%) and Transport, Equipment and Parts (5.2%).

Consumer Price Index (CPI):

- Consumer Price Indices (CPI) measure changes over time in general level of prices of goods and services that **households acquire for the purpose of consumption**.
- It is the index of **price prevailing in the retail market**.
- CPI is widely used as a macroeconomic indicator of inflation, as a tool by governments and central banks for inflation targeting and for monitoring price stability, and as deflators in the national accounts. CPI is also used for indexing dearness allowance to employees for increase in prices.

CPI is more relevant to the customer, since it measures changes in retail prices. CPI represents basket of essential commodities purchased by average consumer-food, fuel, clothing etc.

The number of items in CPI basket include 448 in rural and 460 in urban. Thus, it makes it clear that CPI basket is broader than WPI basket.

Consumer Price Indices (CPI) released at national level are:

1. CPI for Industrial Workers (IW)
2. CPI for Agricultural Labourers (AL)/ Rural Labourers (RL)
3. CPI (Rural/Urban/Combined).

While the first two are compiled and released by the Labour Bureau in the Ministry of Labour and Employment, the third by the Central Statistics Office (CSO) in the Ministry of Statistics and Programme Implementation

Difference between WPI and CPI inflation

In the Indian context, 5 national indices are accounted for inflation measure that include WPI and other four CPI indices.

WPI based inflation:

- WPI index reflects average price changes of goods that are bought and sold in the wholesale market. WPI in India is published by the Office of Economic Adviser, Ministry of Commerce and Industry.
- Further, the data for WPI is monitored and updated on a weekly basis taking into account all the 676 items that form the index.
- **Whole sale price index (WPI) does not include the cost of services**.
- Further, as WPI accounts for changes in general price level of goods at wholesale level, **it fails to communicate actual burden borne by the end consumer**.
- WPI is the **primary measure that is used by the Indian central government for ascertaining inflation** as WPI in contrast to CPI **accounts for changes in price at an early distribution stage**.

CPI based inflation:

- In contrast, CPI is **computed by executing a weighted average** on a particular set of goods and services.
- The computation of CPI **takes into account price changes and the actual inflation that affects the end consumer**.
- CPI is thus a **reflection of changes in the retail prices of specified goods and services.**

Current WPI Base year is 2004-05=100 and the base year for CPI is 2012 currently.

- While earlier the Reserve Bank of India used WPI inflation to manage monetary policy expectations but after the Urjit Patel Committee's recommendation it is now the CPI inflation which is largely taken into account.

'About one quarter of babies worldwide still delivered in the absence of skilled birth attendant'

The recent report on maternal health reveals that nearly one quarter of babies worldwide are still delivered in the absence of a skilled birth attendant. Further, one-third of the total maternal deaths in 2015 happened in India, where 45,000 mothers died during pregnancy or childbirth while Nigeria shouldered the maximum burden of 58,000 maternal deaths.

Each year, about 210 million women become pregnant and about 140 million newborn babies are delivered. "In all countries, the burden of maternal mortality falls disproportionately on the most vulnerable groups of women. This reality presents a challenge to the rapid catch-up required to achieve the underlying aim of the Sustainable Development Goals [SDGs] — to leave no one behind."

According to the academic papers, there are two broad scenarios that describe the poor maternal health care — the **absence of timely access to quality care** (defined as 'too little, too late') and the **over-medicalisation of normal and postnatal care** (defined as 'too much, too soon'). "The problem of over-medicalisation has historically been associated with high-income countries, but it is rapidly becoming more

common in low and middle-income countries, increasing health costs and the risk of harm. For instance, 40.5% of all births are now by caesarean section in Latin America and the Caribbean."

Lack basic resources

While facility and skilled birth attendant deliveries are increasing in many low-income countries, 'skilled birth attendant' and 'emergency obstetric care' can mask poor quality care. Additionally, many birth facilities lack basic resources such as **water, sanitation and electricity**. The measuring progress via the current indicator of skilled birth attendant coverage is insufficient and fails to reflect the complexity of circumstances.

In high-income countries, rates of maternal mortality are decreasing but there is still wide variation at national and international level. For instance, in the U.S., the maternal mortality ratio is 14 per 1,00,000 live births compared to 4 per 1,00,000 in Sweden. The sub-Saharan African region accounted for an estimated 66% (2,01,000) of global maternal deaths, followed by southern Asia at 22% (66,000 deaths). However, the authors warn that not all care is evidence-based, and improved surveillance is needed to understand the causes of maternal deaths when they do occur. The new challenges in delivering high quality care, including the increasing age of pregnancy, and higher rates of obesity

The government considering- imposing limits on retail prices of certain essential commodities

While India is a market economy where prices are ostensibly decided by demand and supply, certain laws empower the Centre to intervene in the market to protect consumer interests. The Essential Commodities Act (ECA) is one such key law.

ESSENTIAL COMMODITIES ACT

The ECA was enacted way back in 1955. It has since been used by the Government to regulate the production, supply and distribution of a whole host of commodities it declares 'essential' in order to make them available to consumers at fair prices.

The list of items under the Act includes drugs, fertilizers, pulses and edible oils, and petroleum and petroleum products. The Centre can include new commodities as and when the needs arises, and take them off the list once the situation improves.

If the Centre finds that a certain commodity is in short supply and its price is spiking, it can notify stock-holding limits on it for a specified period. The States act on this notification to specify limits and take steps to ensure that these are adhered to. Anybody trading or dealing in that commodity, be it wholesalers, retailers or even importers are prevented from stockpiling it beyond a certain quantity.

A State can, however, choose not to impose any restrictions. But once it does, traders have to immediately sell into the market any stocks held beyond the mandated quantity. This improves supplies and brings down prices. The excess stocks are auctioned or sold through fair price shops.

The ECA gives consumers protection against irrational spikes in prices of essential commodities. The Government has invoked the Act umpteen times to ensure adequate supplies. It cracks down on hoarders and black-marketeers of such commodities.

Major concern:

Almost all crops are seasonal, ensuring round-the-clock supply requires adequate build-up of stocks during the season. So, it may not always be possible to differentiate between genuine stock build-up and speculative

hoarding. Also, there can be genuine shortages triggered by weather-related disruptions in which case prices will move up. So, if prices are always monitored, farmers may have no incentive to farm.

With too-frequent stock limits, traders also may have no reason to invest in better storage infrastructure. Also, food processing industries need to maintain large stocks to run their operations smoothly. Stock limits curtail their operations. In such a situation, large scale private investments are unlikely to flow into food processing and cold storage facilities.

Bayer-Monsanto deal

German firm Bayer's acquisition of US seeds company Monsanto, if approved, would create the world's largest agribusiness. But the deal has drawn criticism in India and sparked concerns among the nation's farmers.

Bayer and Monsanto in India

Bayer

- Bayer Group in India comprises the Crop Science and Pharmaceuticals divisions.
- Crop Science is the largest division for Bayer in India. It has two units: Crop Protection / Seeds and Environmental Science.
  - **Crop Protection / Seeds** markets high-value seeds along with innovative chemical and biological pest management solutions.
  - **Environmental Science** focuses on non-agricultural applications, with a range of pest control products and services for areas ranging from the home and garden sector to forestry.
- Bayer is a market leader in the crop protection business in India.

Monsanto

- Monsanto India Ltd. (MIL) has been operating in India for six decades. This company focuses on **maize, agriculture productivity and herbicide**.
- Monsanto Holdings Pvt. Ltd. holds 26% stake in Mahyco which focuses on marketing Paras**cotton hybrid seeds, BT cotton technologies and Vegetable Hybrid seeds**.
- Mahyco Monsanto Biotech India Pvt. Ltd. **sub-licenses BT technologies** to 28 Indian seeds companies.

Thus, Monsanto focuses on seeds and biology, Bayer on chemicals.

The deal matters because:

- The merger will propel the merged entity (Bayer-Monsanto) into a leading player in the seed sector.
- If the deal is approved by regulators, the new company would become the largest agribusiness in the world selling 29% of the world's seeds and 24% of its pesticides.
- This will put it in the commanding position vis-à-vis food supply.
- Through their subsidiaries and joint ventures in India, the two firms will garner a major share in paddy, maize, vegetables and cotton and agrochemicals.

Challenges for India:

- **Less choices**: In the past, first Dow Chemical and DuPont merged, then there was Syngenta's acquisition by China National Chemical Corporation. With the Bayer Monsanto merger, stakeholders worry that the global consolidation will narrow choices for farmers.

- **Monopolisation:** This will leave only three players in the global market in agribusiness and will have a cascading impact on Indian agriculture. It will lead to concentration of power and will result in market distraction. It will also result in further consolidation of the monopoly over agricultural inputs.
- **Slow innovation**: The reduced competition could shrivel up innovation, leading to slower improvements in crop yields.
- **Global agricultural slump**– Commodity prices have fallen sharply, and farmers have less to spend on supplies. This has reduced their profits and eroded the capacity to buy costly biotech seeds.
- **Increased food prices**: If firms can corner key markets in seeds and chemicals, they might be able to raise prices of their products on farmers, which in turn could make food more expensive.
- **Strong lobbying power**: The new entities will have stronger lobbying power with government which would force shaping up of unfavourable policies at the cost of consumers and farmers' interests.

Present situation in India

- Bayer's takeover of Monsanto comes at a time when public resistance to genetically engineered crops has been spreading across India. This is a consequence of the growing number of reports about the negative impact of GM crops on human health and the environment.
- Moreover, GM seeds are increasingly blamed by activists for causing financial hardship to farmers.
- Monsanto recently withdrew an application for its next-generation GM cotton seeds in India due to intellectual property concerns. It opposed the Indian government proposal that would force it to share its technology with local seed companies.
- Another problem between Monsanto and the Indian government involves a cut in the royalty the company gets paid from local seed companies for using its patented technology.

Long range surface-to-air Barak-8 missile successfully test fired

- Surface-to-air missile 'Barak-8', developed jointly by India and Israel.
- It was launched from a mobile launcher at the Integrated Test Range in Chandipur in Balasore district.
- The 4.5-meter missile weighs around 3 tonnes and can carry a payload of 70 kilograms.
- The system also includes a Multi-Functional Surveillance and Threat Alert Radar for detection, tracking and guidance of the missile.

ABOUT BARAK-8 MISSILE:

- Barak 8 also known as LR-SAM.
- Designed to defend against any type of airborne threat including aircraft, helicopters, anti-ship missiles, and UAVs as well as cruise missiles and combat jets
- It has Long Range, two way data link, active Radar Seeker Missile, 360 degree coverage, Vertical Launch, Multiple Simultaneous Engagements
- It is use as a point defence anti-ballistic missile due to its combination of advanced capabilities.

WORLD ECONMIC FREEDOM INDEX 2016

India has slipped by 10 positions to 112th, out of 159 countries and territories, according to the Economic Freedom of the World: 2016 Annual Report.

The Economic Freedom of the World: 2016 Annual Report, released worldwide by the Centre for Civil Society, a public policy think tank, along with Canada's Fraser Institute, measures the degree of economic freedom in countries in five broad areas based on 2014 data **-- size of government: expenditure, taxes and enterprises; legal structure and security of property rights; access to sound money; freedom to trade internationally and regulation of credit, labour, and business.**

India ranked in legal system and property rights (86), sound money (130), freedom to trade internationally (144) and regulation (132) except the size of the government (8).

China, Bangladesh and Pakistan lagged behind India at 113th, 121st and 133th ranks respectively, Bhutan (78), Nepal (108) and Sri Lanka (111).

Hong Kong has the highest level of economic freedom worldwide, followed by Singapore, New Zealand, Switzerland, Canada, Georgia, Ireland, Mauritius, the UAE, Australia, and the UK.

The 10 lowest-ranked countries are Iran, Algeria, Chad, Guinea, Angola, Central African Republic, Argentina, Republic of Congo, Libya and lastly Venezuela. Other notable countries include the United States (16), Germany (30), Japan (40), France (57) and Russia (102).

The economic freedom index of a country is directly proportional to the freedom and opportunities available to its citizens. People living in countries with high levels of economic freedom enjoy greater prosperity, more political and civil liberties, and longer lives. On the contrary, countries at the lower levels of freedom index tend to suppress its citizens' freedom and rights

Invasive Giant African Land Snail sighted in Goa

The Giant African Land Snail (GALS) was spotted in the campus of the Goa University at Taleigao. GALS (Achatina fulica) is listed as one of the world's 100 most invasive species by the International Union for Conservation of Nature and Natural Resources.

About Giant African Land Snail (Achatina Fulica)

- The species is a threat to agro-horticulture.
- It is a threat to the public health as they act as a vector of human diseases like Eosinophilic meningitis, caused by Angiostrongylus cantonensis, a parasite that nematode commonly, resides in the pulmonary arteries of rats.
- They range from 7 cm to 20 cm in length and in case of specimens in Goa they were of 11 cm in length.
- They are known to be dangerous, as they can reproduce faster and take over entire ecosystems and become a menace to crops.

- The giant African land snail is highly invasive species and large colonies of land snails can be formed from just one individual.
- Giant African land snails have both male and female reproductive organs.
- During periods of extreme drought, the giant African land snail goes into aestivation (summer sleep).

An invasive species can be any kind of living organism that is not native to an ecosystem and which causes harm to the environment, the economy or even, human health. It grows and reproduces quickly and spread aggressively with potential to cause harm and thus given the label of "invasive".

New technique may help find life on Mars

MIT scientists have developed a novel **spectroscopic technique** that may help NASA's new Mars rover, to be launched in 2020, find signs of present or former extraterrestrial life on the red planet.

In 2020, NASA plans to launch a new Mars rover that will be tasked with probing a region of the planet.

- The rover will collect samples of rocks and soil, and store them on the Martian surface.
- The rover can quickly and non-invasively identify the sediments on the Mars that are relatively un altered.
- The new technique centres on a new way to interpret the results of Raman spectroscopy, a common, non-destructive process that geologists use to identify the chemical composition of ancient rocks.
- The 2020 Mars rover includes **SHERLOC** (Scanning Habitable Environments with Raman and Luminescence for Organics and Chemicals), an instrument that will require Raman spectra from samples on or just below the Mars surface.
- **SHERLOC** will be pivotal in determining whether life ever existed on Mars.
- The researchers were able to estimate the ratio of hydrogen to carbon atoms from the substructure of the peaks in Raman spectra.

China, Russia conduct naval exercises joint sea-2016 to improve security

The joint sea 2016 in South China Sea was launched as sign of growing cooperation between China and Russia's armed forces against the backdrop of regional territorial disputes.

An eight- day joint naval exercise in the contentious South China Sea, the first drill by any country in the contested waters since an international tribunal rejected Beijing's historic claims to the resource-rich sea.

The naval drills, the first by Russia and China in the South China Sea held off southern China's Guangdong Province and was not close to Beijing's nine-dash line which was struck down by the arbitration court in The Hague in a case brought by the Philippines over Beijing's maritime claims there.

- The joint sea 2016 featured Navy surface ships, submarines, fixed-wing aircraft, ship- borne helicopters marine corps and amphibious armoured equipment from both navies.
- Tasks will include defensive and rescue drill, anti-submarine exercises and the stimulated seizure of an enemy island by marines from both the sides.
- The exercise aims to consolidate and advance the Sino-Russian comprehensive strategic partnership of coordination and deepen friendly and practical cooperation between the two militaries.

Navy's Most Advanced Guided Missile Destroyer 'Mormugao' Launched In Mumbai

'Mormugao', the vessel has been built by government-run Mazgaon Dock Shipbuilders Ltd (MDL) and belongs to Visakhapatnam class of ships being constructed under Project 15B.

- An indigenously built warship equipped with a range of high-tech missiles.
- Mormugao has a displacement of 7,300 tonne with maximum speed of over 30 knots.
- The warship is equipped with surface-to-surface missiles, surface-to-air missiles and anti-submarine rocket launchers.
- It is also capable of carrying two anti-submarine warfare helicopters.
- The vessel has been fitted with multi-mission radar for surveillance along with medium range air and surface surveillance radar and other advanced electronic warfare and decoys.
- It is fitted with the Barak-8 long-range missiles.

MDL is the only dock in the country that has capability to build submarines.

India, Nepal Sign Agreements

These agreements were inked during the four days official state visit of Nepal Prime Minister Pushpa Kamal Dahal Prachanda to India.
India and Nepal today three agreements:

- New dollar credit line agreement of $750 million for post-earthquake reconstruction.
- MoU for project management consultancy services for upgradation/Improvement of Road infrastructure in Tarai of Nepal.
- Amendatory dollar credit line for post-earthquake reconstruction projects in Nepal.

Delink drug prices from R&D costs: UN

A landmark report by the United Nations High-Level Panel on Access to Medicines has called for delinking drug prices from research and development (R&D) costs.

- The report calls for human rights to be placed over intellectual property laws and all countries must freely be able to use flexibilities granted under TRIPS to access affordable medicines.
- The report also recognises the incoherence between the human rights and the intellectual property rules.

Important recommendations made:

- Countries that threaten generic drug makers like India for using their entitlements under the TRIPS agreement should be forced to face serious sanctions.
- Governments should negotiate the coordination, financing and development of health technologies to aid existing models.
- Governments should also increase current levels of investment in health technology innovation to address unmet needs.
- WTO Members must register complaints against undue political and economic pressure which includes taking punitive measures against offending WTO Members.
- Governments engaged in bilateral and regional trade and investment treaties should ensure that these agreements do not include provisions that interfere with their obligations to fulfil the right to health. Public health impact assessments should be undertaken, inform negotiations, and made publicly available.

- Several United Nations agencies should collaborate with one another and with other relevant bodies with the relevant expertise to support governments to apply public-health-sensitive patentability criteria.
- United Nations Secretary-General should establish an independent review body tasked with assessing progress on health technology innovation and access, which would monitor challenges and progress on innovation and access to health technologies under the ambit of the UN 2030 Agenda.
- Membership of this review body should include governments, representatives from the UN and multilateral organisations, civil society, academia, and the private sector.
- Separately, the report calls for the UN Secretary-General to establish an inter-agency taskforce on health technology innovation and access. This taskforce, operating for the duration of the SDGs, should work toward increasing coherence among United Nations entities and relevant multilateral organizations like the WTO.
- It has also called for greater transparency in drug pricing and public health impact assessments in free trade agreements.

Background:

Access to medicines is not just a poor country problem. The high price of drugs is crippling healthcare systems across the world. Millions of people are suffering and dying because the medicines they need are too expensive. If implemented, the report's recommendations will go a long way towards ensuring all people have access to affordable quality medicines.

Joint India-US army exercise Yudh Abhyas 2016

The annually held bilateral exercise, Yudh Abhyas, is one of the longest running joint military drills between the United States and India. The event is hosted alternately by the two countries. The first exercise was conducted in 2004 at the platoon level.

This year, the U.S. Army is participating with a company of 225 men of the 2nd Stryker Brigade Combat Team of the 7th U.S. Infantry Division. The Indian Army will be present with an equal number of soldiers from the 14th Battalion of the Garhwal Rifles and the 12th Battalion of the Madras Regiment.

The focus of the exercise will be counterinsurgency and counterterrorism operations in mountainous terrain under a UN mandate.The exercise will include "raid, cordon, and search" operations and will take place in a heavily forested area at altitudes of up to 8,000 feet (2,430 meters) just over 100 kilometers away from the Sino-Indian border.

State-of-the-art equipment for surveillance and tracking, specialist weapons for Close Quarter Battle with terrorists, explosive and lED detectors, as well as the latest communication equipments are being fielded by both sides.

Yudh Abhyas is also an opportunity to broaden U.S.-India military cooperation and enhance interoperability.

Yudh Abhyas 2016 is the first joint India-U.S. military drill after the signing of a bilateral deal on military logistics exchange, known as the Logistics Exchange Memorandum of Agreement (LEMOA).

New Guidelines for Flexi-Fund Issued for CSS

The new flexi-fund guidelines have been issued by Union Finance Ministry for the Centrally Sponsored Schemes (CSS) which will enable states for spending more spending money under the CSS to meet local developmental requirements.

- Flexi-fund guidelines are prepared according to the instructions issued by NITI Aayogfor rationalization of Centrally Sponsored Schemes.
- The sub-group of Chief Ministers of states and consultations with stakeholders has recommended these instructions.

Key Facts: Flexi-funds is increased 10% to 25% for states and 30% for Union Territories from current for each CSS under these new guidelines, so states can also set aside 25% of any CSS as flexi-fund if they were desire for spending on any sub-scheme or innovation or component.

- States can use the fund for satisfy of the local requirements which are come under the natural calamities such as internal security disturbances or undertake modification or restoration activities.
- Every State government compulsory has to constitute a state-level sanctioning committee (SLSC) for the flexi-fund facility but it will not for CSS to emanate from legislation such as MNREGA.

Centre skips BS-V auto emission norms

The Centre has notified the Bharat Stage (BS)-VI emission standards for two-wheelers and four-wheelers **from April 2020 across the country**.With this, the government has decided **to skip the BS-V emission standards** and move **directly to BS-VI from the BS-IV norms** currently being followed in various cities.The government had earlier planned to implement BS-V norms from 2020 and BS-VI norms from 2022.

BS-VI is the Indian equivalent of the Euro-VI norms. At present, BS-IV norms are being followed in over 30 cities while the rest of the country follows BS-III norms. Currently, **BS IV fuel** is being made available across the country in stages, with the entire nation expected to be covered **by April1 2017.**

Bharat norms:Introduced in the year 2000, the Bharat norms are emission control standards put in place by the government to keep a check on air pollution. Based on the European regulations (Euro norms), these standards set specifications/limits for the release of air pollutants from equipment using internal combustion engines, including vehicles.

BS-VI Norms:

- The particulate matter emission in BS-V and BS-VI is same for diesel cars though it is 80% less than BS IV.
- The nitrogen oxide (NOx) level is, however, 55% less in BS-VI over BS-V which in itself is 28% lower than BS IV.
- The sulphur coSntent in fuel norms for diesel and petrol under both BS-V and -VI standards does not change at 10 ppm, though it is substantially less than 50 mandated for both the fuels under BS-IV.