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PIB (16th to 30th June, 2019)

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1**FINANCIAL STABILITY AND DEVELOPMENT COUNCIL (FSDC)****CONTEXT:**

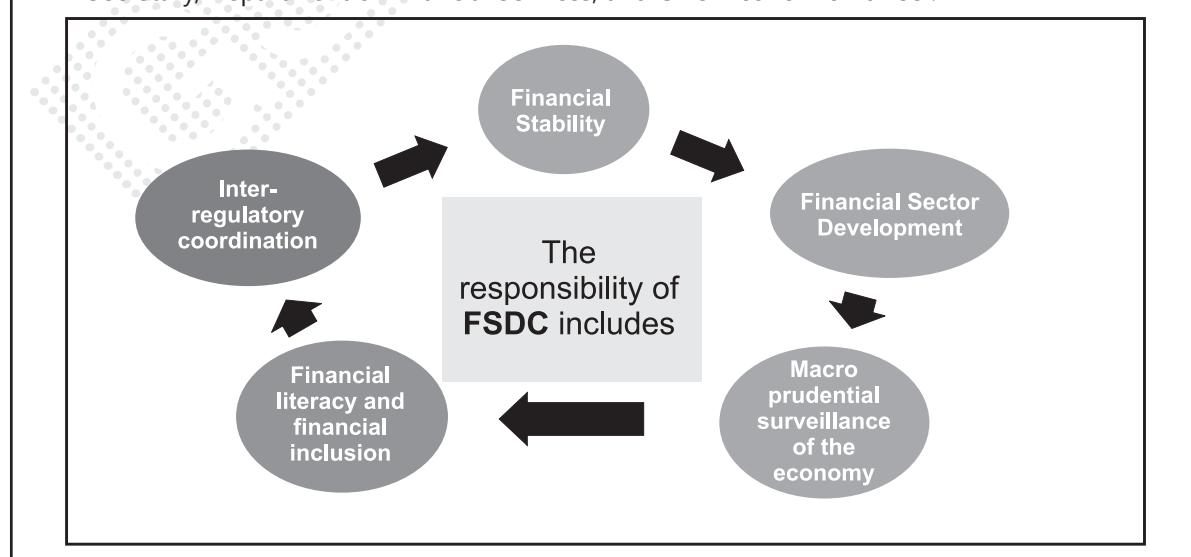
- The 20th Meeting of the **Financial Stability and Development Council (FSDC)** was held under the Chairmanship of the Union Minister of Finance and Corporate Affairs.

ABOUT:

- The Meeting reviewed the current global and domestic economic situation and financial stability issues including, inter-alia, those concerning Banking and NBFCs.
- The Council was also apprised of the progress made towards setting-up of the Financial Data Management Centre (FDMC) to facilitate integrated data aggregation and analysis and also a Computer Emergency Response Team (CERT-in) towards strengthening the cyber security framework for the financial sector.
- The Council also held consultations to obtain inputs/ suggestions of the financial sector regulators for the Budget. All the regulators presented their proposals for the Union Budget 2019-20.

Financial Stability and Development Council (FSDC):

- It is an apex-level body constituted by the government of India. Recommendations for such a super regulatory body were first mooted by the Raghuram Rajan Committee in 2008. Finally in 2010, the then Finance Minister of India, Pranab Mukherjee, decided to set up such an autonomous body dealing with macro prudential and financial regularities in the entire financial sector of India.
- FSDC has replaced the **High Level Coordination Committee on Financial Markets (HLCCFM)**, which was facilitating regulatory coordination, though informally, prior to the setting up of FSDC.
- It is **not** a statutory body.
- Chairperson:** The Union Finance Minister of India
- Members:** Heads of the financial sector regulatory authorities (i.e., RBI, SEBI, IRDA, and PFRDA), Finance Secretary and/or Secretary, Department of Economic Affairs (Union Finance Ministry), Secretary, Department of Financial Services, and Chief Economic Adviser.

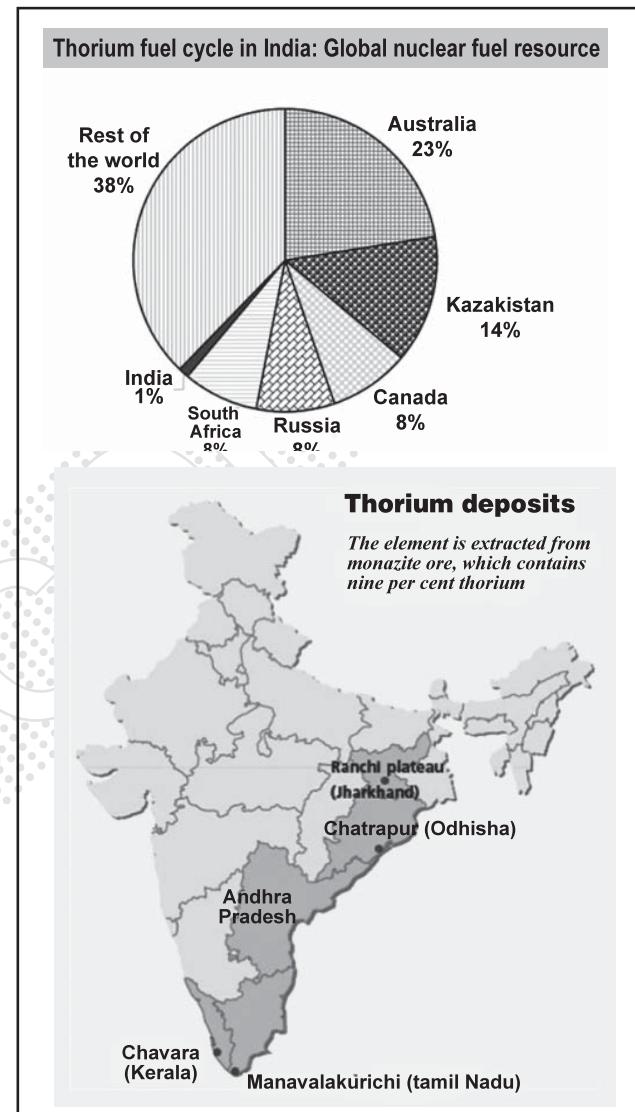


2**THORIUM-BASED NUCLEAR REACTORS****CONTEXT:**

- Department of Atomic Energy (DAE) has planned the use of large deposits of Thorium available in the country as a long-term option.

ABOUT:

- A three-stage nuclear power programme has been chalked out to use Thorium as a viable and sustainable option, right at the inception of India's nuclear power programme.
- The three stage nuclear power programme aims to multiply the domestically available fissile resource through the use of natural Uranium in Pressurized Heavy Water Reactors, followed by use of Plutonium obtained from the spent fuel of Pressurized Heavy Water Reactors in Fast Breeder Reactors.
- Large scale use of Thorium will subsequently follow making use of the Uranium-233 that will be breed in Reactors. The utilisation of Thorium, as a practically inexhaustible energy source, has been contemplated during the third stage of the Indian Nuclear Programme.
- As is the case with generation of electricity from Uranium, there will be no emission of green house gases from Thorium also and therefore, it will be a clean source of energy.
- It is not possible to build a nuclear reactor using Thorium (Thorium-232) alone due to its physics characteristics. Thorium has to be converted to Uranium-233 in a reactor before it can be used as fuel.
- Development of technologies pertaining to utilization of thorium has been a part of ongoing activities in Department of Atomic Energy. With sustained efforts over the years, India has gained experience in different areas of Thorium fuel cycle.
- Efforts are currently on to enlarge the present Thorium related R&D work and activities to a bigger scale and towards development of technologies for the third stage of our nuclear power programme.
- Commercial utilization of Thorium, on a significant scale can begin only when abundant supplies of either Uranium-233 or Plutonium resources are available. Accordingly, the large scale introduction and utilization of Thorium in the programme has been contemplated after an adequate inventory of Plutonium becomes available from our Fast Breeder Reactors (FBRs), comprising the second stage of Indian nuclear power programme. This will be after a few decades of large scale deployment of FBRs.
- In preparation for the utilisation of Thorium in Third Stage of India's Nuclear Power Programme, efforts towards technology development and demonstration are made now so that a mature technology for Thorium utilization is available in time.



3

MODERNIZATION OF TECHNOLOGY TO DOUBLE THE INCOME OF FARMERS

CONTEXT:

- The Government has set a target of doubling of farmers' income by the year 2022. The Government has constituted an Inter-Ministerial Committee to examine issues relating to doubling of farmers' income and recommend a strategy to achieve doubling of farmers' income in real terms by the year 2022.

ABOUT:

- The committee has, inter-alia, appreciated the role of Digital Technology, which can play a transformational role in modernizing and organizing how rural India performs its agricultural activities. The technologies include **Artificial Intelligence, Big Data Analytics, Block chain Technology, Internet of Things** etc. The deployment of technology is very important to make schemes of the Ministry successful.

Major technology interventions include:

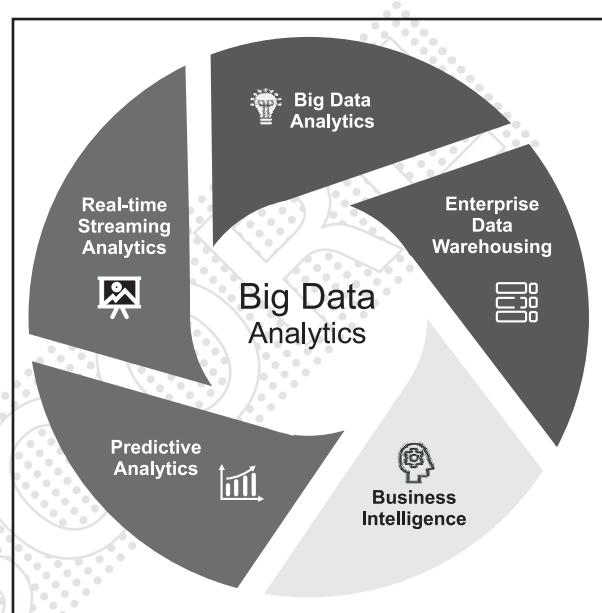
- Development of **Kisan Suvidha** mobile application to facilitate dissemination of information to farmers on the critical parameters viz., Weather; Market Prices; Plant Protection; input Dealers (Seed, Pesticide, Fertilizer) Farm Machinery; Soil Health Card; Cold Storages & Godowns, Veterinary Centres and Diagnostic Labs. With market information, Farmers are better informed about markets to sell produce, prevailing market prices and quantity demanded in the market. Thus, they can make informed decisions to sell produce at the right price and right time.
- The Indian Council of Agriculture Research (ICAR)** has also compiled more than 100 mobile apps developed by ICAR, State Agricultural Universities and Krishi Vigyan Kendras and uploaded on its website. These mobile apps developed in the areas of crops, horticulture, veterinary, dairy, poultry, fisheries, natural resources management and integrated subjects, offer valuable information to the farmers, including package of practices, market prices of various commodities, weather related information, advisory services, etc.
- Development of **mKisan Portal** for sending advisories on various crop related matter to the registered farmers through SMS.
- Launching of **e-National Agriculture Market** initiative to provide farmers an electronic online trading platform.
- Implementation of Agricultural Marketing Infrastructure, sub-scheme of Integrated Scheme of Agricultural Marketing, in order to improve/create scientific storage capacity for storing farm produce, processed farm produce and to reduce post-harvest storage loss.
- Introduction of **Soil Health Card Scheme** to assist State Governments in providing Soil Health Cards to all farmers across the country once in a cycle of 2 years. Soil health card provides information to the farmers on nutrient status of their soil along with recommendations on appropriate dosage of nutrients to be applied for improving crop productivity and soil fertility.
- Providing subsidies under **National Food Security Mission** (Oil Seeds and Oil Palm) to farmers on seed components, transfer of technologies, production inputs and water carrying devices. Financial assistance is also being provided under this scheme for block demonstration, frontline demonstration, and farmers training to educate farmers to adopt modern techniques of farming to yield good crop economically.
- Use of space technology for various programmes/ areas such as Forecasting Agricultural Output using Space, Agro-meteorology and Land-based Observations project, Coordinated programme on Horticulture Assessment and Management using geo-informatics project, National Agricultural Drought Assessment and Monitoring System, Rice-Fallow Area Mapping and intensification, geo tagging of infrastructure and assets created under Rashtriya Krishi Vikas Yojana, and Crop Insurance.
- Using machine learning process along with different computer algorithm for crop classification and area estimation.

Artificial intelligence (AI):

- ▶ In computer science, artificial intelligence (AI), sometimes called machine intelligence, is intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans.
- ▶ Artificial intelligence can be classified into three different types of systems: analytical, human-inspired, and humanized artificial intelligence. Analytical AI has only characteristics consistent with cognitive intelligence; generating cognitive representation of the world and using learning based on past experience to inform future decisions.
- ▶ Human-inspired AI has elements from cognitive and emotional intelligence; understanding human emotions, in addition to cognitive elements, and considering them in their decision making. Humanized AI shows characteristics of all types of competencies (i.e., cognitive, emotional, and social intelligence), is able to be self-conscious and is self-aware in interactions with others.

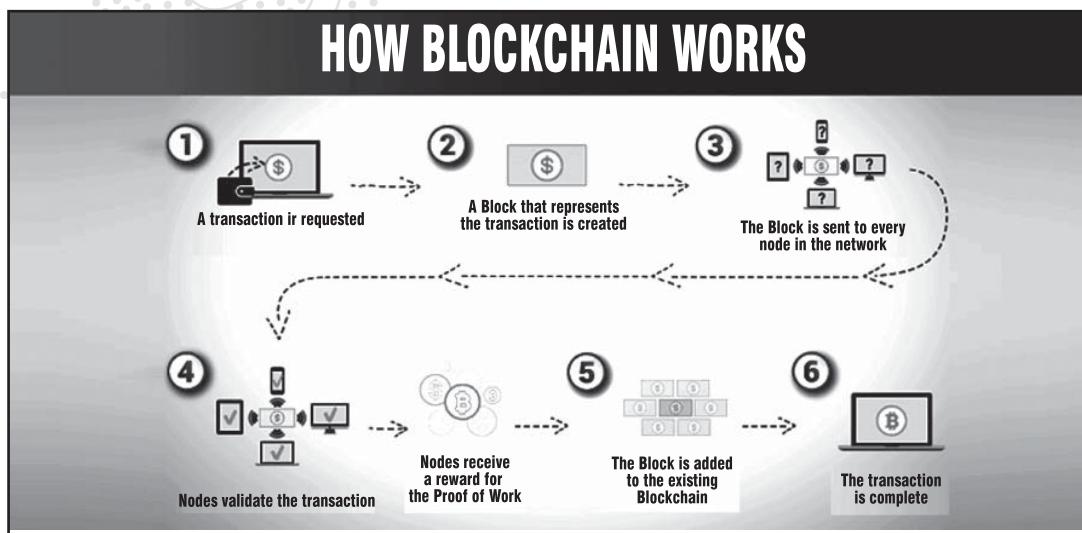
Big Data Analytics:

- ▶ Big Data analytics is the process of collecting, organizing and analyzing large sets of data (called Big Data) to discover patterns and other useful information. Big Data analytics can help organizations to better understand the information contained within the data and will also help identify the data that is most important to the business and future business decisions. Analysts working with Big Data typically want the knowledge that comes from analyzing the data.

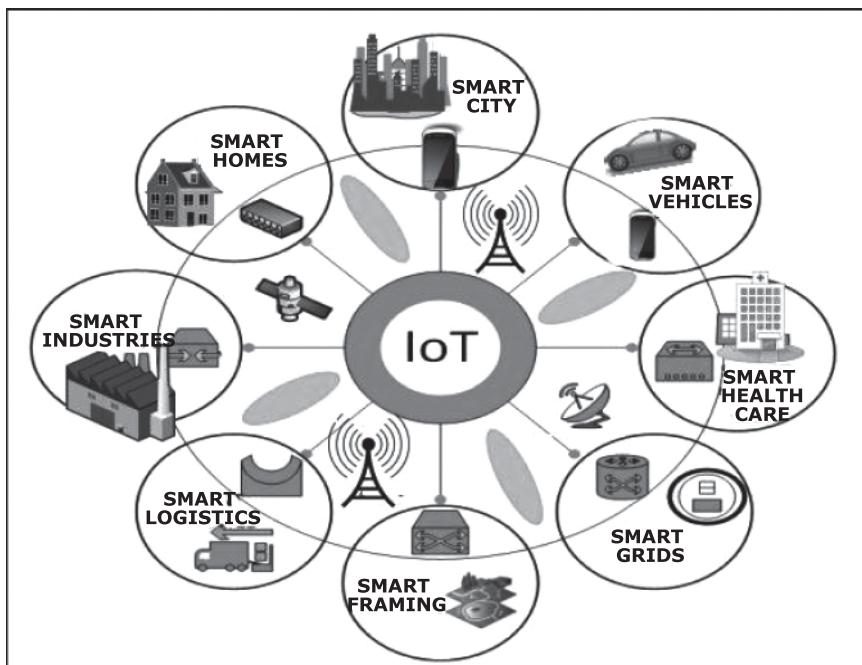


Blockchain:

- ▶ It is a digital, immutable, distributed ledger that chronologically records transactions in near real time." In simple words, it is an interlinked and continuously expanding list of records stored securely across a number of interconnected systems.



Internet of Things (IoT) :



4

COAL SUPPLY RATIONALIZATION SCHEME

CONTEXT:

- Ministry of Coal issued the Policy for Linkage Rationalization for Independent Power Producers (IPPs).

ABOUT:

- The policy envisages to undertake a comprehensive review of existing sources of coal and consider the feasibility for rationalization of sources with a view to optimize the transportation cost and materialization taking into account coal availability and logistics.
- This exercise is aimed at reducing transportation distance and so the necessary savings shall be on the account of savings in transportation costs which shall be passed on appropriately.

Recommendation of inter-ministerial task force (IMTF):

- An Inter-Ministerial Task Force (IMTF) was constituted to undertake a comprehensive review of existing coal sources of Independent Power Producers (IPPs) having linkages and consider the feasibility for rationalization of these sources with a view to optimize transportation cost, given the various technical constraints.
- The recommendation of the IMTF has been approved by the Competent Authority.
- Point-wise details :**
- Coal linkage rationalization shall be an exercise in which the coal linkage of a Thermal Power Plant (TPP) of an Independent Power Producer (IPP) may be transferred from one Coal Company to another based on the availability during the fiscal and future coal production plan of the coal company.

- ▶ The underlying objective behind the exercise shall be to reduce the landed cost of coal due to reduction in transportation cost. The savings achieved due to this reduction of landed price of coal are required to be passed on to the Discom/consumer of power.
- ▶ This exercise shall be voluntary on the part of the TPPs.

5**WORLD FOOD INDIA****CONTEXT:**

- World Food India to be held from 1st to 4th November 2019 in New Delhi

ABOUT:

- World Food India 2019 will be the biggest gathering of all global and domestic stakeholders in Food Processing Sector.
- The tagline of the event will be "Forging Partnerships for Growth".
- World Food India 2019 shall consist of several top level seminars, investment opportunities, exhibitions, high level CEO roundtables, country sessions, B2B and B2G networking etc.
- Indian Food Processing Industry has grown tremendously recording 11% growth rate, which is twice the pace of Global Industry. The sector has recorded double digit growth rate across all major sub-segments of the sectors both in terms of value and volume.
- Despite huge domestic market of 1.3 billion customers with the youngest population globally and an abundant agricultural base, the processing levels in India remain low at 7.7% behind several economies such as China, Malaysia and US.
- India's share in global exports of processed food is only 2%. Besides, India also has a high share of harvest and post-harvest losses from major agricultural produces on account of poor storage, transportation and logistics to the extent of INR 92,651 Crores (\$13 Billion)-3 times the agricultural budget.

Background:

- The government initiated a biennial event- World Food India to promote food processing sector at global level. The first such event was conducted in 2017 and received wide success.
- The event created Brand India in global food map by positioning India as a World Food Factory.
- It was for the first time in India that all major policy makers and top industrialists across the globe in Food Processing Industries were together under one roof.

Scope and Significance of Food Processing Industries in India

- India is a land famous for food production. More than 50% of Indian population work in Agriculture related activities. If there are good food processing industries in India, raw materials like grains or meat can be converted into food for domestic and foreign consumption.
- **India's position as a major food producer:** India ranks 1st in the production of – milk, ginger, banana, guava, papaya, mango etc. It ranks 2nd in the production of rice, wheat, potato, sugarcane, cashew nut, tea etc. It is among the top 5 countries in the production of coffee, tobacco, spices, seeds etc. With such a huge raw material base, we can easily become the leading supplier of food items in the world.
- **Resource advantage of India:** Different soil types and different climate types for cultivation of diverse food crops, long coastal line suitable for fishing, huge resource of domestic animals etc.
- **Increasing employment:** Expected to create more than 10 lakh new jobs.
- **Curbing Migration:** Provides employment in rural areas, hence reduces migration from rural to urban. Resolves issues of urbanization.
- **Curbing food inflation:** Removes issues of wastage or middle man. Curbs food inflation. Indirect relief on non-food inflation too.

- **Crop Diversification:** Because of long shelf life, farmers can diversify their products.
- **The demand potential :** Expected to reach 350b\$ by 2020. Youth population, middle class, rising income, nuclear families, media penetration etc cited as positive factors.
- **Government initiatives to boost food processing:** Various government initiatives like attracting FDI, reduction in excise duties etc have boosted food processing.
- **Future driver of Indian growth:** Food processing corresponds to around 10% of GDP in agriculture-manufacturing sector. It has potential for more.

6**AGRICULTURAL PRODUCTION IN THE COUNTRY**

- The total food grain production in the country during each of the last three agriculture years (July-June) i.e. from 2015-16 to 2017-18 are given as under:

Year	Production (in million tonnes)
2015-16	251.54
2016-17	275.11
2017-18	285.01

- In order to increase production and productivity of agricultural crops in the country, Government of India is implementing through State Governments, several Crop Development Schemes/Programmes such as National Food Security Mission (NFSM), Rashtriya Krishi Vikas Yojana (RKVY), Bringing Green Revolution to Eastern India (BGREI), National Mission for Sustainable Agriculture (NMSA), Pradhan Mantri Krishi Sinchai Yojana, Soil Health Card etc.
- Under these Schemes / Programmes, funds are provided to States for implementation of State-specific agricultural strategies including incentives to farmers for use of quality seeds, improve soil health under Integrated Nutrient Management (INM), Integrated Pest Management (IPM), farm mechanization, etc. The States are also provided support for creation of agricultural infrastructure for optimal use of water and other natural resources.
- Further, to achieve higher agricultural productivity, Indian Council of Agricultural Research (ICAR) is conducting basic and strategic research relating to crop improvement, production and protection technologies suitable to different situations including development of location-specific varieties/hybrids and technologies.

7**MODERNIZATION OF RAILWAY STATIONS****ABOUT:**

- Modernisation/upgradation of Railway station in Indian Railways is a continuous and on-going process. This has been undertaken from time to time under various modernization schemes such as Model Station Scheme, Modern Station Scheme and Adarsh Station Scheme. The 'Model Station Scheme' (June, 1999 to November, 2008) and the 'Modern Station Scheme' (2006-07 and 2007-08) have since been discontinued.
- At present, upgradation of stations is undertaken under Adarsh Station Scheme. Selection of Railway stations under Adarsh Station Scheme is based on the identified need for upgradation of amenities. Besides there are other policies initiatives by Indian Railways to provide improved facilities at all stations.
- Recently, a separate policy has been made for development of stations under Station Redevelopment Programme through Indian Railway Stations Development Corporation Limited (IRSDC) on '**as is where is**' basis.

- Government has approved Railways' proposal for redevelopment of railway stations by IRSDC as Nodal Agency, through simplified procedures and for longer lease tenure. Accordingly, all the stations on Indian Railways have been entrusted to IRSDC and other Government agencies for undertaking the techno-economic feasibility studies.
- Based on the outcome of the feasibility studies, stations are planned to be taken up for redevelopment in phases especially the stations located in major cities, pilgrimage centres and important tourist destinations. Redevelopment of stations is planned through leveraging of commercial development of vacant land/air space in and around stations.
- Construction and Modernization of all the railway stations in the country is a need based ongoing process subject to commercial justification, operational requirement, technical feasibility and resource availability.

8**ESTABLISHMENT OF INDIA INTERNATIONAL SKILL CENTRES****CONTEXT:**

- The India International Skill Centres (IISC) program was launched as a pilot operational in 14 centres in the country. A total of 583 students were trained in these centres.

ABOUT:

- The IISCs at present and is the form of a future network model have the following as their focus:
 - Counseling and guidance along with Foreign Employment Support for employment opportunities in the overseas market
 - Information on the required skill set
 - Minimum wages to the potential emigrants
 - Skill Testing & certification aligned with employer standards
 - Incremental skill training & Pre-Departure Orientation Training (PDOT)
 - To focus on emerging opportunities in all regions of the world

India International Skill Centers:

- ▶ One of the major focus area of the Skill India Mission is to prepare our youth for opportunities of employment in the global markets. To meet this objective, Ministry of Skill Development & Entrepreneurship is setting up India International Skill Centers (IISC) to provide skill trainings and certification benchmarked to International Standards.
- ▶ India International Skill Centers shall be set up through the National Skill Development Corporation (NSDC) and shall impart training through the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and Pravasi Kaushal Vikas Yojana (PKVY) to youth seeking global mobility for jobs.
- ▶ IISCs shall be state-of-the-art centers equipped with lab infrastructure to deliver International benchmarked training and certification programs.
- ▶ IISCs to be setup at the overseas migration pockets of the country for equipping trainees looking to migrate overseas
- ▶ Pre-Departure Orientation Training (PDOT) modules to be part of the trainings at IISCs which shall make the trainees adjust to the culture, language and environment of the migrating country as well as provide the necessary digital literacy skills
- ▶ IISCs shall look to develop placement linkages to international countries through direct tie ups with Employers or Recruitment Agents approved by the Ministry of External Affairs
- ▶ Post the successful completion of the assessments, candidates would be awarded a joint certification of the Indian Sector Skill Council and the International Awarding Organisation.

9**NEW POLICY FOR WOMEN EMPOWERMENT****CONTEXT:**

- The Ministry of Women and Child Development has prepared the draft National Policy for Women after considering suggestions/comments received from stakeholders.

ABOUT:

- The Draft envisions a society in which, women attain their full potential and are able to participate as equal partners in all spheres of life.
- The draft policy addresses the diverse needs of women through identified priority areas :
 - Health including food security and nutrition,
 - Education,
 - Economy (including agriculture industry, labour, employment, NRI women, soft power, service sector, science and technology), Violence against women,
 - Governance and decision making
 - Violence Against Women
 - Enabling environment (including housing, shelter and infrastructure, drinking water and sanitation, media and culture, sports and social security)
 - Environment and climate change.

10**INTEREST FREE LOANS TO FARMERS IN UP****CONTEXT-**

- Reserve Bank of India (RBI) has issued directions for Relief Measures to be provided by respective lending institutions in areas affected by natural calamities which, inter alia, include, restructuring/ rescheduling of existing crop loans and term loans, extending fresh loans, relaxed security and margin norms, moratorium, etc.

About-

- The directions have been so designed that the moment calamity is declared by the concerned District Authorities, they are automatically set in motion without any intervention, thus saving precious time.
- The benchmark for initiating relief measures by banks has also been reduced from 50% to 33% crop loss in line with the National Disaster Management Framework.
- Banks have also been advised not to insist for additional collateral security for restructured loans.

Interest Subvention-

- The Government of India in the Department of Agriculture, Cooperation and Farmers' Welfare (DAC&FW) implements an interest subvention scheme for short term crop loans up to Rs. 3.00 lakh, which provides interest subvention of 2% per annum to Banks on use of their own resources, and, an additional 3% incentive to the farmers for prompt repayment of the loan, thereby reducing the effective rate of interest to 4%.
- Under the aforesaid interest subvention scheme, to provide relief to farmers affected by natural calamities, the interest subvention (2%) on crop loan continues to be available to banks for the first year on the restructured amount.

- Such restructured loans may however, attract normal rate of interest from the second year onwards as per policy laid down by the Reserve Bank of India (RBI).
- In order to provide relief to the farmers affected due to severe natural calamities, the Government in DAC&FW has decided that interest subvention of 2% per annum will be made available to banks for first three years/entire period (subject to a maximum of five years) on the restructured loan amount, and in all such cases the benefit of prompt repayment incentive at 3% per annum shall also be provided to the affected farmers.
- The grant of such benefits in cases of severe natural calamities will be decided by a High Level Committee (HLC) based on the recommendation of Inter-Ministerial Central Team (IMCT) and Sub Committee of National Executive Committee (SC-NEC).

Steps taken by Government:

- The Government of India/ RBI/ National Bank for Agriculture and Rural Development (NABARD) have, inter alia, taken the following major initiatives for providing hassle free crop loans to farmers :-
- Government fixes agriculture credit disbursement targets for the banking sector every year and banks have consistently surpassed these targets.
- As per RBI directions, Domestic Scheduled Commercial Banks are required to lend 18% of the Adjusted Net Bank Credit (ANBC) or Credit Equivalent to Off-Balance Sheet Exposure (CEOBE), whichever is higher, towards agriculture.
- The Government has introduced the Kisan Credit Card (KCC) Scheme, which enables farmers to purchase agricultural inputs such as seeds, fertilisers, pesticides, etc. and draw cash to satisfy their agricultural and consumption needs. The KCC Scheme has since been simplified and converted into ATM enabled RuPay debit card with, inter alia, facilities of one-time documentation, built-in cost escalation in the limit, any number of drawals within the limit, etc.
- To enhance coverage of small and marginal farmers in the formal credit system, RBI has decided to raise the limit for collateral-free agriculture loans from Rs. 1 lakh to Rs. 1.6 lakh.
- The requirement of 'no due' certificate has also been dispensed with for small loans up to Rs.50,000 to small and marginal farmers, share-croppers and the like and, instead, only a self-declaration from the borrower is required.
- To bring small, marginal, tenant farmers, oral lessees, etc. into the fold of institutional credit, Joint Liability Groups (JLGs) have been promoted by banks.

11

MODERNISATION OF ARMED FORCES

CONTEXT:

- During the last three financial years (2016-17 to 2018-19), contracts worth about Rs. 1,38,727.16 crore have been signed with foreign vendors for capital procurements of defence equipment for Armed Forces.
- Government is taking measures for modernization of the Armed Forces, through procurement of new equipment and upgrading of existing equipment and systems. The modernization projects are being progressed as per the approved Capital Acquisition Plans and in terms of the extant Defence Procurement Procedure.

About-

- Since the launch of 'Make in India' in September 2014, several measures have been taken by the Government to promote indigenous design, development and manufacture of defence & aerospace equipment in the country under 'Make in India' by harnessing the capabilities of the public and private sector.
- Defence Procurement Procedure (DPP) has been revised in 2016 wherein specific provisions have been introduced for stimulating growth of the domestic defence industry.

- The details of Budget Estimates (BE), Revised Estimates (RE) and Actual Expenditure (Actuals) on the modernisation of Armed Forces under Defence Services Estimates (DSE) for the last three years are as under:

Year	Budget Estimates (BE)	Revised Estimates (RE)	Expenditure (Actuals)
2016-17	69,898.51	62,619.36	69,280.16
2017-18	69,473.41	68,965.24	72,732.28
2018-19	74,115.99	73,882.95	75,900.54

Steps taken by Government:-

- Government has decided to establish two defence industrial corridors to serve as an engine of economic development and growth of defence industrial base in the country. These are spanning across Chennai, Hosur, Coimbatore, Salem and Tiruchirappalli in Tamil Nadu and spanning across Aligarh, Agra, Jhansi, Kanpur and Lucknow in Uttar Pradesh (UP).
- An innovation ecosystem for Defence titled Innovations for Defence Excellence (iDEX) was launched in 2018.
- iDEX is aimed at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs, Start-ups, Individual Innovators, R&D institutes and Academia and provide them grants/funding and other support to carry out R&D which has potential for future adoption for Indian defence and aerospace needs.
- The Defence Ministry has instituted a new framework titled 'Mission RakshaGyan Shakti' which aims to provide boost to the IPR culture in indigenous defence industry.
- Government also notified a Policy for indigenisation of components and spares used in Defence Platforms. The objective of the policy is to create an industry ecosystem which is able to indigenize the imported components (including alloys & special materials) and sub-assemblies for defence equipment and platform manufactured in India.
- Defence Investor Cell has been created in the Ministry to provide all necessary information including addressing queries related to investment opportunities, procedures and regulatory requirements for investment in the sector.
- FDI Policy has been revised and under the revised policy, FDI is allowed under automatic route upto 49% and beyond 49% through Government route wherever it is likely to result in access to modern technology or for other reasons to be recorded.
- The Defence Products List for the purpose of issuing Industrial Licenses (ILs) under IDR Act has been revised and most of the components, parts, sub-systems, testing equipment and production equipment have been removed from the list, so as to reduce the entry barriers for the industry, particularly small & medium segment.
- The process for export clearance has been streamlined and made transparent & online.
- Government has set up the Technology Development Fund (TDF) to encourage participation of public/private industries especially MSMEs, through provision of grants, so as to create an ecosystem for enhancing cutting edge technology capability for defence application.
- Government has also promulgated the policy of Strategic Partnership in the Defence Sector which encourages participation of the private sector in manufacture of major Defence platforms and equipment in four selected segments viz. Submarines, Fighter Aircraft, helicopters and Armored Fighting vehicles/Tanks.

12**NATIONAL POLICY ON BIO-FUEL****ABOUT:**

- The National Policy on Biofuels-2018 allows production of ethanol from damaged food grains like wheat, broken rice etc. which are unfit for human consumption. The policy also allows conversion of surplus quantities of food grains to ethanol, based on the approval of National Biofuel Coordination Committee.

BACKGROUND:

- In order to promote biofuels in the country, a National Policy on Biofuels was made by Ministry of New and Renewable Energy during the year 2009. Globally, biofuels have caught the attention in last decade and it is imperative to keep up with the pace of developments in the field of biofuels.
- Biofuels in India are of strategic importance as it augers well with the ongoing initiatives of the Government such as Make in India, Swachh Bharat Abhiyan, Skill Development and offers great opportunity to integrate with the ambitious targets of doubling of Farmers Income, Import Reduction, Employment Generation, Waste to Wealth Creation. Biofuels programme in India has been largely impacted due to the sustained and quantum non-availability of domestic feedstock for biofuel production which needs to be addressed.

Salient Features:

- The Policy categorises biofuels as "Basic Biofuels" viz. First Generation (1G) bioethanol & biodiesel and "Advanced Biofuels" - Second Generation (2G) ethanol, Municipal Solid Waste (MSW) to drop-in fuels, Third Generation (3G) biofuels, bio-CNG etc. to enable extension of appropriate financial and fiscal incentives under each category.
- The Policy expands the scope of raw material for ethanol production by allowing use of Sugarcane Juice, Sugar containing materials like Sugar Beet, Sweet Sorghum, Starch containing materials like Corn, Cassava, Damaged food grains like wheat, broken rice, Rotten Potatoes, unfit for human consumption for ethanol production.
- Farmers are at a risk of not getting appropriate price for their produce during the surplus production phase. Taking this into account, the Policy allows use of surplus food grains for production of ethanol for blending with petrol with the approval of National Biofuel Coordination Committee.
- With a thrust on Advanced Biofuels, the Policy indicates a viability gap funding scheme for 2G ethanol Bio refineries of Rs.5000 crore in 6 years in addition to additional tax incentives, higher purchase price as compared to 1G biofuels.
- The Policy encourages setting up of supply chain mechanisms for biodiesel production from non-edible oilseeds, Used Cooking Oil, short gestation crops.
- Roles and responsibilities of all the concerned Ministries/Departments with respect to biofuels has been captured in the Policy document to synergise efforts.

Targets:-

- The National Policy on Biofuels-2018 approved by the Government envisages an indicative target of 20% blending of ethanol in petrol and 5% blending of bio-diesel in diesel by 2030.
- The policy has widened the scope of raw material for ethanol procurement.
- Under EBP programme, ethanol blending in petrol is being undertaken by the Oil Marketing Companies (OMCs) in whole country except island Union Territory (UT) of Andaman Nicobar and Lakshadweep wherein, OMCs blend up to 10 % ethanol in petrol under the EBP Programme.

Steps taken by Government in this regard-

- Government has approved Pradhan Mantri JI-VAN Yojana to provide Viability Gap Funding (VGF) to Second Generation bio-ethanol manufacturing projects to increase availability of ethanol for EBP programme.

- Government has decided to leapfrog directly to BS-VI quality w.e.f. 1st April, 2020 in the entire country.
- Considering the rise in environmental pollution in National Capital Region, Government has started supply of BS-VI auto fuel in National Capital Territory of Delhi from 1st April, 2018.
- Further, in line with the directions issued by Ministry of Petroleum and Natural Gas, supply of BS-VI auto fuel has started in ten districts of National Capital Region and three other districts/cities outside of National Capital Region (Karauli, Dhaulpur and city of Agra) w.e.f. 1st April, 2019.

Expected Benefits:

- **Reduce Import Dependency:** One crore lit of E10 saves Rs.28 crore of forex at current rates. The ethanol supply year 2017-18 is likely to see a supply of around 150 crore litres of ethanol which will result in savings of over Rs.4000 crore of forex.
- **Cleaner Environment:** One crore lit of E-10 saves around 20,000 ton of CO₂ emissions. For the ethanol supply year 2017-18, there will be lesser emissions of CO₂ to the tune of 30 lakh ton. By reducing crop burning & conversion of agricultural residues/wastes to biofuels there will be further reduction in Green House Gas emissions.
- **Health benefits:** Prolonged reuse of Cooking Oil for preparing food, particularly in deep-frying is a potential health hazard and can lead to many diseases. Used Cooking Oil is a potential feedstock for biodiesel and its use for making biodiesel will prevent diversion of used cooking oil in the food industry.
- **MSW Management:** It is estimated that, annually 62 MMT of Municipal Solid Waste gets generated in India. There are technologies available which can convert waste/plastic, MSW to drop in fuels. One ton of such waste has the potential to provide around 20% of drop in fuels.
- **Infrastructural Investment in Rural Areas:** It is estimated that, one 100klpd bio refinery will require around Rs.800 crore capital investment. At present Oil Marketing Companies are in the process of setting up twelve 2G bio refineries with an investment of around Rs.10,000 crore. Further addition of 2G bio refineries across the Country will spur infrastructural investment in the rural areas.
- **Employment Generation:** One 100klpd 2G bio refinery can contribute 1200 jobs in Plant Operations, Village Level Entrepreneurs and Supply Chain Management.
- **Additional Income to Farmers:** By adopting 2G technologies, agricultural residues/waste which otherwise are burnt by the farmers can be converted to ethanol and can fetch a price for these waste if a market is developed for the same. Also, farmers are at a risk of not getting appropriate price for their produce during the surplus production phase. Thus conversion of surplus grains and agricultural biomass can help in price stabilization.

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EAC-PM RELEASES A DETAILED ANALYSIS ON ROBUSTNESS OF INDIA'S GDP ESTIMATION METHODOLOGY

CONTEXT-

- The Economic Advisory Council to the Prime Minister released a detailed note titled 'GDP estimation in India- Perspectives and Facts'. The note provides a clear rationale for India's switch to an improved GDP estimation methodology in January 2015.

About-

- The new methodology that uses 2011-12 as the base year includes two major improvements:-
 - Incorporation of MCA21 database, and
 - Incorporation of the Recommendations of System of National Accounts (SNA), 2008.
- This change was in line with other countries that have changed their methodologies in line with SNA 2008 and revised their respective GDP figures. On an average, real GDP estimates saw an increase of 0.7% among OECD countries.

Highlights of the Report-

- The note provides detailed evidence that indicates that Dr. Subramanian has cherry-picked a few indicators and performed a rather unconvincing regression analysis to prove his hypothesis that India's GDP was over-estimated post 2011-12.
- The note concludes with the point that India's GDP estimation methodology is by no means a perfect exercise and the Ministry of Statistics and Program Implementation is working on multiple aspects to improve the accuracy of economic data.
- However, the direction and pace of improvement is commendable and as of today India's GDP estimation methodology is at par with its global standing as a responsible, transparent and well-managed economy.

GDP-

- Gross domestic product (GDP)** is a monetary measure of the market value of all the final goods and services produced in a specific time period, often annually. GDP (nominal) per capita does not, however, reflect differences in the cost of living and the inflation rates of the countries; therefore using a basis of GDP per capita at purchasing power parity (PPP) is arguably more useful when comparing differences in living standards between nations.

The Data Collection Process-

- The Central Statistics Office (CSO), under the Ministry of Statistics and Program Implementation, is responsible for macroeconomic data gathering and statistical record keeping.
- Its processes involve conducting an annual survey of industries and compilation of various indexes like the Index of Industrial Production (IIP), Consumer Price Index (CPI), etc.
- The CSO coordinates with various federal and state government agencies and departments to collect and compile the data required to calculate the GDP and other statistics.

