

Current Affairs ANALYST



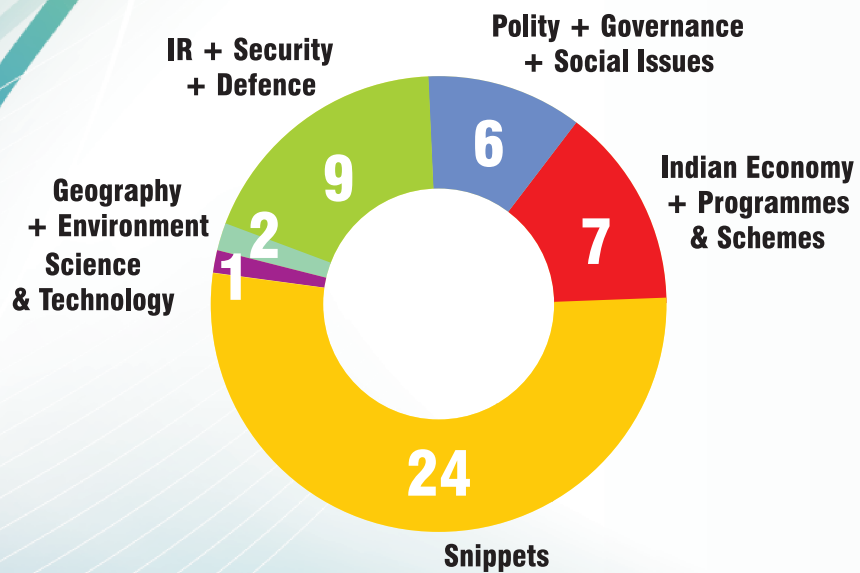
National Capital Goods Policy 2016 unveiled



in focus



North Korea Crisis



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FOCUS



National Capital Goods Policy 2016 Unveiled



A. National Capital Goods Policy 2016 unveiled

The National Manufacturing Policy envisaged manufacturing to contribute 25% to GDP and create 100 million jobs. In contrast, till date, manufacturing activity contributes to 17% of India's GDP and only 4 million jobs are estimated to have been created in the sector since 2010. The gap to stated aspiration is large. The Capital Goods sector is a critical element to boost manufacturing activity by providing critical inputs, that is, machinery and equipment.

Hence Government has come out with 1st ever policy for the country's capital goods sector. It envisages carving out a roadmap to boost manufacturing in Capital Goods (CG) sector so that it becomes a part of global value chains apart from mere supply chains.

Brief About Policy:

Vision: The National Capital Goods Policy is formulated with the vision to increase the share of capital goods contribution from present 12% to 20% of total manufacturing activity by 2025.

Objectives of the Policy:

The objectives of the National Capital Goods Policy are to:

- Increase total production: To create an ecosystem for a globally competitive capital goods sector to achieve total production in excess of ~Rs. 750,000 Cr by 2025 from the current ~Rs. 230,000 Cr.

- Increase employment: Raising direct and indirect employment from the current 8.4 million to ~30 million by 2025.
- Increase domestic market share: To increase the share of domestic production in India's capital goods demand from 60% to 80% by 2025 and in the process improve domestic capacity utilization to 80-90%.
- Increase exports: To increase exports to 40% of total production (from Rs 61,000 Cr to Rs 300,000 Cr) by 2025 from current 27%, enabling India's share of global exports in capital goods to increase to ~2.5% and making India a net exporter of capital goods.
- The policy also aims to facilitate improvement in technology depth across sub-sectors (increasing research intensity in India from 0.9% to at least 2.8% of GDP), increase skill availability (training ~50 lakh people by 2025), ensure mandatory standards and promote growth and capacity building of MSMEs

Significance & Current Status of Indian Capital Goods Industry:

Capital goods Industry is a large sector with a market size of ~ Rs. 2,82,000 Cr and total production of ~Rs. 2,30,000 Cr in 2014-15. The sector also provides direct

employment to ~1.4 million people, the sector provides indirect employment to ~7 million people and impacts users of capital goods estimated to be 50 times of the direct employment. However, the growth of the sector has been lagging, with domestic market size de-growing at 3.6% per annum and total production increasing by only 1.1% per annum over the last 3 years respectively compared to the Planning Commission targeted growth rate of 16.8% p.a. for production of capital goods during the 12th Five Year Plan period.

Capital goods imports have been growing at a rate of 9.8% p.a. over the last 5 years. The share of imports in the Indian capital goods market has increased from 34% in 2009-10 to 40% in 2014-2015, indicating a looming threat to India's self-reliance and national security. At the same time, the capacity utilization of domestic manufacturers is only about 60-70% across sub-sectors. India's share of global capital goods exports is still significantly sub-scale at ~0.8% only.

Issues & Challenges of Indian Capital Goods Industry:

A wide range of issues has negatively impacted the growth of capital goods production in India. Major issues & challenges are described below.

Issues affecting domestic demand creation: The lack of positive bias towards domestic value addition in public procurement policies, difficult contract conditions, persistent import and use of second-hand machinery with no incentive for replacement, zero duty import under 'Project Imports' and delays in project implementation are the key factors limiting domestic demand.

Issues affecting exports: Key challenges include the inadequate availability of competitive short and long-term financing, non-tariff barriers in export markets denying market access and limited understanding of international market requirements especially by smaller players. India also needs to align its trade policy to the shift in India's export map towards developing regions. More trade agreements are needed with developing countries where India has a comparative advantage.

Issues affecting technology depth: Significant challenges and gaps exist in high-end, heavy-duty, high-productivity and high precision technologies across sub-sectors. Contributors to these gaps include low end user acceptance of new Indian technology, lack of skill availability, weak support infrastructure and low Indian participation in developing international standards. Further, patent processing takes very long and fiscal incentives for R&D are still inadequate.

Issues affecting cost competitiveness: Indian manufacturers are still challenged with respect to cost competitiveness compared to their global peers due to a skewed and state-wise variation in tax and duty structure, prevalence of inverted duty structure for several products and high infrastructure and logistics cost.

Issues related to SMEs: SMEs still face challenges in developing new products and processes due to their smaller scale and inadequate institutional mechanisms, limited access to capital and low awareness and compliance with international standards.

In addition, there are several sub-sector specific challenges. Achieving high growth would need focused collective efforts by all concerned stakeholders - government, industry, end user segments alike; supported by an enabling policy for the capital goods industry.

Key Policy recommendation & way forward:

- To integrate major capital goods sub-sectors like machine tools, textile machinery, earthmoving and mining machinery, heavy electrical equipment, food processing machinery etc as priority sectors under 'Make in India' initiative.
- To create an enabling scheme as a pilot for 'Heavy Industry Export & Market Development Assistance Scheme (HIEMDA)' with a view to enhance the export of Indian made capital goods.
- Strengthen existing capital goods scheme through increasing the budgetary allocation & increasing scope of the present 'Scheme on Enhancement of Competitiveness of Capital Goods' which include setting up of Centers of Excellence, Common Engineering Facility Centers, Integrated Industrial Infrastructure Park and Technology Acquisition Fund Programme, by adding a set of components including technology, skills & capacity building, user promotional activities, green engineering and energy, advanced manufacturing and cluster development .
- To launch a Technology Development Fund under PPP model to fund technology acquisition, transfer of technology, purchase of IPRs, designs & drawings as well as for commercialization of such technologies of capital goods.
- To create a 'Start-up Center for Capital Goods Sector' shared by Department of Heavy Industry (DHI) and Capital Goods industry (CG) association in 80:20 ratio to provide an array of technical, business and financial support resources and services to promising start-ups in both the manufacturing and services space. These services should focus on Pre-incubation, Incubation and Post-Incubation phases of a start-up's growth to ensure that a robust foundation is established.
- Mandatory Standardization which includes, inter alia, defining minimum acceptable standards for the industry and adoption of International Organization for Standardization (ISO) standards in the absence of other standards, to institute formal development program for promoting and framing Standards with Standards Developing Organizations (SDOs) including Bureau of Indian

Standards (BIS), international standard bodies, test / research institutions and concerned industry/ industry associations.

- To upgrade development, testing and certification infrastructure such as Central Power Research Institute (CPRI), and set up 10 more CMTI like institutes to meet the requirements of all sub-sectors of capital goods.
- To develop a comprehensive skill development plan/scheme with Capital Goods Skill Council and to upgrade existing training centers and set up 5 regional State-of-the-Art Greenfield Centers of Excellence for skill development of CG sector.
- To provide schemes for enhancing competitiveness

through a cluster approach, especially for CG manufacturing SMEs. Thrust to be on critical components of competitiveness such as Quality management, Plant maintenance management, Energy management, Cost management, Human Resource management and prevention of corrosion with the Government support to the extent of 80% of the cost.

The National Capital Goods Policy is a major step to unleash the potential of this promising sector and is envisaged to contribute significantly to achieving the overall vision for manufacturing and Make in India. The smooth implementation and effectiveness of the policy will require alignment and joint action of several ministries and departments and have implications on multiple stakeholders and user industries.

B. North Korea Crisis

North Korea Crisis

1. **Context** - The Nuclear test, satellite launch using ballistic missile technology.
 - a. The North Korean government has claimed that it successfully tested a "hydrogen bomb" on January 5. It was the 4th underground nuclear test conducted by North Korea and the 1st since 2013.
2. **Arguments sighted by North Korea** -
 - a. The North Korean government has been feeling increasingly threatened with the United States and its allies in the region adopting an ever more militarily bellicose attitude. The U.S. and South Korea concluded massive war games in September 2015 on the Korean peninsula to intimidate North Korea. Some of the joint military drills were held just 20 km from the border with North Korea. The 2015 joint U.S.-South Korean military exercises were known as OPLAN 5015 and were part of the U.S.' new war strategy to counter alleged North Korean provocations.
 - b. The U.S. continues to conduct subcritical nuclear tests and to test nuclear-capable missiles. It has not signed the Comprehensive Test Ban Treaty (CTBT) and is spending \$1 trillion on modernising its nuclear arsenal. The other countries that also have nuclear weapons are also busy upgrading their arsenals-among them are India, Pakistan and Israel.

3. Implications:

- a. Nuclear test by North Korea are going to have serious implications for the peace and security of the region.
- b. Test puts nail to any options of rapprochement in the Korean peninsula.
- c. It will further increase the militarization of the area.
- d. US in recently passed the 2015 National Defence Authorisation Act, which will provide for the setting up of a joint missile defence system, comprising the U.S., South Korea and Japan, in North-East Asia.
- e. Increased US presence in the region may antagonize China, with whom tensions are rising because of South China Sea issue.

4. Reactions by -

- a. South Korea :
 - i. After the latest nuclear test by the North, the South has decided to resume its propaganda barrage. North Korea has described the resumption of the propaganda broadcasts as "an act of war".
- b. China :
 - i. China has strongly criticised the latest nuclear test. The Chinese Foreign Ministry spokesperson said that China "will firmly push for the

denuclearisation of the Korean peninsula”-which also happens to be the U.S.' stated aim.

- ii. The Chinese leadership does not have any exceptionally warm relationship with North Korea, but it has reportedly refused to join the economic blockade of the country and is North Korea's largest trading partner. But Kim Jong-un has still not received an official invitation to visit China, which has signalled on many occasions that it remains opposed to North Korea's ambitious missile and nuclear programmes.

c. USA :

- i. After the January nuclear test, the U.S. has announced the deployment of even more strategic assets on the Korean peninsula. An American B-52 bomber accompanied by fighter jets flew at a very low altitude near the De-Militarised Zone (DMZ) that divides North and South Korea. Top North Korean officials have warned that the deployment of nuclear capable missiles and planes have pushed the Korean peninsula “toward the brink of war”.
- ii. USA has also imposed unilateral sanctions on North Korea. The new sanctions regime will require the President to mandatorily investigate and designate persons and entities for violations. The law will also give more tools to the administration to enforce secondary sanctions - which are restrictions on a 3rd country from doing business with the North.
- iii. These also covered North's export and export of metals and coal.
- iv. Since most of North Korea's trade is with China, which is not on the same page regarding sanctions, the outcome of these sanctions is doubtful.

5. Response by United Nations

The United Nations Security Council voted to impose a broad array of sanctions against North Korea, which are considered to be the most stringent in the history of UN.

The sanctions will:

- a. Require all North Korean planes and ships carrying cargo to be inspected. Previously, nations only inspected planes and ships when they had “reasonable grounds,” which enabled North Korea to hide tools and parts for missiles and the nuclear program in

inconspicuous packages, Power said. “This is hugely significant.”.

- b. Ban Pyongyang from exporting most of the country's natural resources. Coal alone accounted for about \$1 billion in annual income.
 - c. Ask U.N. member states to ban North Korea from opening banks, and to close any banks believed to be associated with North Korea's nuclear and missile programs.
 - d. Direct member states to expel North Korean diplomats and foreign nationals engaged in illicit activities.
 - e. Prohibit nations from providing training to North Korean nationals in fields that could advance the nation's missile and nuclear programs, such as aerospace engineering and advanced computer simulation.
 - f. Ban member states from allowing North Korea to charter foreign vessels or aircraft, and ban all nations from operating any vessels that use North Korean flags.
 - g. Prohibit the supply of aviation fuel including rocket fuel and the sale of small arms to North Korea.
6. Timeline of attempts to denuclearise North-Korea / overview -
- a. Way back in the 1990s, North Korea had agreed to halt its nuclear programme in exchange for guarantees that the economic sanctions it was subjected to would be lifted and a peace treaty would be signed.
 - b. In 1994, it signed “a denuclearisation” agreement with the U.S. For many years, as relations with the South improved, North Korea halted its nuclear programme.
 - c. President Bill Clinton had sent his Secretary of State Madeleine Albright to Pyongyang towards the end of his presidency in an attempt to secure a diplomatic breakthrough in relations. North Korea signalled at the time that it was willing to give up its nuclear option if it was allowed to honourably enter the international mainstream.
 - d. In 2005, North Korea reached an agreement with the U.S., China, South Korea and Russia to suspend its nuclear programme in exchange for diplomatic concessions and energy assistance.
 - e. But it walked out of the deal in 2008 after the West refused to give any meaningful concessions. Now, many disarmament

- experts say that North Korea has reached a point of “no return” as it has considerably expanded its arsenal of sophisticated missiles and nuclear weapons.
- f. The downward spiral in relations with the U.S. started after President George W. Bush included North Korea in the so-called “axis of evil” and earmarked the country for regime change.
 - g. In 2003, North Korea walked out of the Nuclear Non-Proliferation Treaty (NPT). Relations with the South deteriorated after the right-wing government that was elected in the middle of the last decade gave up the “sunshine policy” that was introduced by Kim Dae-jung in the late 1990s. The sunshine policy encouraged the much more prosperous south to invest in and trade with the North and at the same time step up diplomatic contacts and family reunions.
 - h. North Korea conducted its 1st nuclear test in October 2006, after its relations soured with the U.S. and South Korea.
 - i. The 2nd test was conducted in May 2009. Kim Jong-il was in power at the time of both the tests.
 - j. After his son, Kim Jong-un, took over, North Korea conducted its 3rd nuclear test in February 2013.
 - k. Many senior U.S. officials have been urging their government to engage North Korea through serious diplomacy. Stephen Bosworth, who was President Obama's 1st special envoy to North Korea, said recently that there was no point in continuing with the policy of “strategic patience” and that there should be meaningful talks instead.
 - l. According to many observers, North Korea will keep on testing until it gets the U.S. back at the negotiating table and a peace treaty formally ending the Korean war is signed. Technically, the 2 countries are still at war. North Korea has repeatedly stated that a formal peace treaty will give it the security it needs. Regime change in the North is also anathema to China as such a development will bring the U.S. army, along with a potentially hostile neighbour, to its doorstep.

1. INDIAN ECONOMY + SCHEMES

PPP in Railways

Indian Railway has proposed Rs 8.56 lakh crore investment plans for the next 5 years and the national transporter expects to execute a sizable chunk of projects through Public-Private Partnership and in collaboration with states.

Areas where private participation can be done:

- Indian railway is suffering from low investments, poor capacity, congestion, low speeds, poor conditions of railway stations.
- The budgetary resources are not sufficient to make up for the investments required.
- PPP approach can be used to transform the railway in different areas comprising from ticketing, station construction and upkeep, rolling stock manufacturing, signaling etc.
- Bibek Debroy committee has also said that PPP mode can be utilized for mobilizing finances.

Benefits

- Opens opportunity for returns from investment in Rail Projects.
- Augmentation of railway infrastructure and decongestion of the railways.
- Ensure timely availability of Rail Infrastructure to the beneficiaries viz. Port, Industry and States.
- Better maintenance and efficiency in implementation of projects.
- The PPP projects in case of airports have shown that this mode greatly helps in improving quality of services.

Challenges that is likely to come:

- Absence of independent regulator in the railway sector. In its absence there are chances of litigation or other issues as cropped up in road sector.
- No past experience in the PPP model for implementation of projects for Railways.

What are the different models of PPP for Railways?

According to the official, the participatory policy for rail connectivity was launched in 2012 which has 5 models including

1. Non-government Railway Model,

- This model shall be applicable to 1st and last mile connectivity projects at either end

of the rail transportation chain providing connectivity to ports, mines, logistics parks or large- sized cluster of industries, which are handling goods traffic for multiple consignors or consignees.

- These railways will be operated on “common carrier” principle for public transportation of goods and passenger.
- In this model land acquisition, development, construction, maintenance everything will be done by private player.
- Operations and revenue collection will be done by Indian Railways.
- Freight revenue will be collected by Indian Railway and apportioned to the Non-Government Railway as per Inter Railway Finance Adjustment
- As the project line is on private land and the assets are fully private infrastructure, it will be transferred to IR in case of violations of specified terms of agreement at terms set out in the Agreement or by mutual consent at such terms as may be mutually agreed.

2. Joint Venture Model,

- In this model SPV is created which carries all the work starting from project finalization to operations and maintenance. The Operations & Maintenance can be done by Indian Railway.
- This model is to be used for commercially feasible and bankable projects.
- Revenue realization for SPV will be through apportionment of freight charges.

3. Build Operate and Transfer Model,

- This model shall be applicable to the sanctioned Railway projects where it is not possible to identify a stakeholder or strategic investor
- Who can take a lead in making investment in the project line.
- The projects under this model will generally be long rail corridors carrying traffic generated from various streams.
- These will be sandwiched sanctioned new line and gauge conversion projects or dedicated freight corridors.

- e. In the absence of strategic investor, selection of investors will be done through competitive bidding process.
- f. The Net revenue payable to the concessionaire shall be fixed at 50% of the gross apportioned revenue.

4. capacity augmentation with funding provided by Customers Model

- a. For doubling/multiple line projects where some customers are beneficiaries of the capacity addition and may be interested in funding the project for expeditious completion/commissioning.
- b. Construction, operations and maintenance will be done by Railways.
- c. Railways will pay 7% of the amount invested through freight rebate on freight volumes every year for 30 years or till the funds provided by the project beneficiary is recovered, whichever is earlier.

5. Capacity Augmentation through Annuity Model.

- a. This model is applicable to sanctioned doubling, 3rd line and 4th line projects where it may not be possible to find funding from any specific user.
- b. The concession would be for financing and construction.
- c. The concessionaire would be paid through annuity for limited predetermined period. Annuity will be determined through competitive bidding. Annuity payments will be budgeted and paid on a committed basis.

Projects completed through PPP in railway

During 2002 and 2014, 8 port connectivity projects worth about Rs. 3153 crore were implemented. These covered the linking of Mundra Port and Pipavav-Surendranagar, Hassan- Mangalore, Gandhidham-Palanpur and Bharauch-Dahej gauge conversion projects.

5/20 Rule: An Analysis

Recently officials of most of our old leading Air companies met Civil Aviation Minister and batted for keeping the contentious 5/20 rule for flying abroad. Let us understand what is 5/20 rule and how it has impacted Airline Industry and why old airlines in India want this rule to stay.

What is 5/20 rule?

The '5/20' rule as it is been called, decrees that new airlines in India must fly local for a maximum of 5 years along with the necessary securing of at least 20 aircrafts, before setting their feet abroad.

Why it should be abolished?

- New airlines in India say that 5/20 regulation works against Indian airlines as foreign carriers who do not meet these criteria are allowed to operate in Indian skies while local airlines do not enjoy reciprocal rights to fly overseas.
- Due to restrictions imposed on domestic airlines under 5/20 70% of foreign travel is handled by foreign airlines and 74% of traffic rights are still under-utilized.
- There is a need to replace the 5/20 Rule in order to equip Indian commercial airline operators with long term financial security and international quality standards. Revisiting this rule will provide incentive for new players to enter the market due to advent of opportunity for enhancing revenues, yields and ultimately, profits. This would ultimately benefit the consumers as with increased competition the airfare would further decrease.
- It has led to situations where fast growing airlines have certainly acquired a large fleet offering top service but may not have completed 5 years.

Why it should not be abolished?

- The older airlines are saying that 5/20 rule is necessary to avoid discrimination against them and provide them an equal level-playing field with the foreign and new Airlines which had started operations in India.
- Secondly they believe that Scrapping 5/20 rule would allow more foreign airlines to enter India and take over our Airline Industry, since they believe that new airlines like Vistara and Air Asia are effectively owned by foreign parents.

Way forward

- Those airlines opposing or supporting 5/20 rules are doing it to protect their vested interest. Many neutral observers believe that 5/20 rule should be abolished but the abolition should be based on certain conditionality's (which have to be met by Indian airlines).
- Government has proposed that 5/20 rule should be replaced with domestic flying credit flying formula, Domestic Flying Credits (DFC) requires airlines to accruing miles by flying domestic which can be redeemed for overseas flying rights), and an option for domestic airlines to start flying international from the 1st day on a written assurance that they would meet the DFC threshold within 18-24 months of start of their operation. the credits are to be calculated on the basis of revenue per passenger kilometre flown by an airline in a year.
- DFC would also give a boost to tier 2 and tier 3 airports and would encourage airlines to fly to

remote destinations within India such as those in the North-east and Andaman islands to enhance regional connectivity and thereby enabling smaller airports to feed into bigger Indian airports as under DFC Airlines will earn more credits by flying to tier II and tier III airports.

China demands market Economy Status in WTO

Recently China demanded market economy status from WTO.

What is Market Economy Status ?

- a. WTO makes provision for anti-dumping duty in case a country exports products at a rate cheaper than those prevailing in originating state or cost of production. This prevailing or assumed base value is called normal value, which is used for calculating anti dumping duty.
- b. In case of China, the normal value was determined using a 3rd country data for calculating normal value because prices in China were government controlled and were very low at the time of it joining the WTO.
- c. If a China is given market economy status than for calculating the normal value for determining anti dumping duties selling price or cost of production prevalent in China will have to be taken into account.

Why China is demanding it?

- a. When China joined WTO, the agreement had a clause which said that for 15 years, the selling price and cost of products will not be taken into account while calculating anti-dumping duties on Chinese products.
- b. Also China sees it as a method to boost its exports and weal economy.

How it will affect India?

- a. If it is done it will affect Indian domestic industry and exports in great way. The anti-dumping duty on Chinese products will be significantly lower as compared to present times. This will flood Indian market with Chinese products.
- b. Also Indian exports will decline as Chinese exports will out power Indian products because of their low costs.

Why countries are against it

Many countries say that there is lot of government influence in determining prices in China. Government subsidies, absence of proper accounting standards, price fixing, and absence of transparency regarding minimum wages and property rights in India are some of the factors which prevent free price determination.

PMGSY: An Evaluation

Introduction

The Pradhan Mantri Gram Sadak Yojana (PMGSY) is a programme launched by the NDA government on 25th December 2000 for providing all-weather road connectivity to every rural habitation with a minimum population of 500 in the plains and 250-plus in hill states, tribal districts and desert areas. It has completed 15 years. In this article we will analyze whether it has achieved its goals.

Achievements of PMGSY

- The fully centrally-sponsored scheme covered a total of 1,78,184 habitations as per the criteria laid down. The fact that 1,14,540 or 64% of these eligible habitations actually have roads today - with projects being cleared for another 30,501 - can be considered a reasonable achievement .
- Since its inception, PMGSY has provided connectivity of over 4,66,044 km - including up gradation of 1,67,977 km of existing roads - at an aggregate cost of Rs 1,41,822 crore as on January 2016 What is more significant is that The states that have recorded the highest road construction - Madhya Pradesh (63,548 km), followed by Rajasthan (58,462 km), Uttar Pradesh (45,905 km), Bihar (35,510 km) and Odisha (35,019 km) - are the ones which were the least connected at the turn of the century.
- The biggest impact has been on productivity. Once there is connectivity, hitherto isolated hamlets become part of larger clusters of 200-300 villages with 50,000-100,000 consumers, against 1,000-2,000 previously. This allows for economies of scale, specialization and flourishing of micro-enterprises.
- PMGSY has made it possible for producers of perishable produce such as milk, fish and vegetables to sell these to a wider base of consumers. Equally, it has enabled companies to distribute their products through rural retail stores. These stores were earlier unviable both for their owners and the companies wanting to replenish stocks.
- It has transformed many Islands into mainland one prime example of it is Katara village in purnea district which was only accessible through boats PMGSY are integrated the village with road and due to this the villagers of that area has benefitted drastically in all aspects.
- It is a better antidote to poverty than MNREGA as it is better implemented in poorer states like Bihar and Orissa than in Better off states like Tamil Nadu. Which could be seen from the fact that that Bihar, Jharkhand, Odisha, Madhya Pradesh and Uttar Pradesh together accounted for nearly 45 %

of the total spending on PMGSY in 2014-15, whereas their corresponding combined share in MGNREGA expenditure was just 25%.

What factors contributed to success of PMGSY?

- It is one of the rare CSS which has achieved both efficiency and equity targets. The reason for this is that Under the scheme the firm which is given the job of constructing the road is also mandatory given the job of bearing maintenance cost for 1st 5 years this has led to using of better quality materials in building the road as if inferior material is used in constructing the road this would mean higher maintenance cost for the firm. Thus it has ensured that better quality roads are constructed under PMGSY.
- Secondly it did not suffer for lack of funding for most of the time. Initially, it was financed largely through a 50-paise-per-litre cess on diesel, which was raised to 75 paise in the 2003-04 Budget. The UPA, which came to power a year later, did not undermine the programme, despite it being an NDA flagship. On the contrary, it enhanced allocations.
- The reason for better performance of poorer states is that While MGNREGA is supposed to be demand or need-driven, the reality is that it is being successfully implemented only in better-governed states even with lower levels of poverty. In contrast, under PMGSY, state-wise allocations are fixed based on pre-determined gaps in road infrastructure. That automatically ensures more money being released and roads getting built in Bihar rather than in Tamil Nadu or Kerala.
- PMGSY is less prone to leakage because it is a specific asset-focused programme, unlike MGNREGA that is general dole-based and not amenable to monitoring beyond a point. The rigid labour-material ratio prescriptions under MGREGA also means that the quality of assets created aren't of the standard of roads constructed under PMGSY.

Conclusion

MGNREGA may have a role in mitigating immediate rural distress on account of drought and other unforeseen calamities. But programmes like PMGSY provide more effective long-term poverty alleviation solutions, through raising of overall productivity and expansion of non-farm employment opportunities.

No surcharge, service charge on cards and digital payments

Union Cabinet recently in February cleared a proposal to withdraw surcharges, service charges and convenience fees on cards and digital payments that are currently imposed by various government departments. Other measures aimed at reducing cash transactions include creation of necessary assurance

mechanisms for quick resolution of fraudulent transactions.

It is important because it will help India to move towards a cashless economy by promoting use of card based or digital based instruments.

What is a cashless economy and where does India stands

- a. A cashless economy is one in which all the transactions are done using cards or digital means. The circulation of physical currency is minimal.
- b. India uses too much cash for transactions. The ratio of cash to gross domestic product is one of the highest in the world-12.42% in 2014, compared with 9.47% in China or 4% in Brazil. Less than 5% of all payments happen electronically
- c. Some studies show that cash dominates even in malls, which are visited by people who are likely to have credit cards, so it is no surprise that cash dominates in other markets as well.

Benefits of Cashless economy

- a. Reduced instances of tax avoidance because it is financial institutions based economy where transaction trails are left.
- b. Curb generation of black money
- c. Will reduce real estate prices because of curbs on black money
- d. It will universal availability of banking services to all as no physical infrastructure is needed other than digital.
- e. There will be greater efficiency in welfare programmes as money is wired directly into the accounts of recipients.
- f. There will be efficiency gains as transaction costs across the economy should also come down.
- g. Reduced cost of printing notes, instances of their soiled or becoming unusable, counterfeit currency.
- h. Reduced costs of operating ATMs.
- i. Speed and satisfaction of operations for customers, no delays and queues, no interactions with bank staff required.
- j. A Moody's report pegged the impact of electronic transactions to 0.8% increase in GDP for emerging markets and 0.3% increase for developed markets because increased velocity of money
- k. For farmers and other better knowledge of where they spend and how much they spend

Challenges in making India a cashless economy

- a. Availability of internet connection and financial literacy.

- b. Though bank accounts have been opened through Jan Dhan Yojana, most of them are lying un operational. Unless people start operating bank accounts cashless economy is not possible.
- c. There is vested interest in not moving towards cashless economy.
- d. India is dominated by small retailers. They don't have investment needed to have electronic infrastructure needed.
- e. Indian banks are making it difficult for digital wallets issued by private sector companies to be used on the respective bank websites. It could be restrictions on using bank accounts to refill digital wallets or a lack of access to payment gateways. Regulators will have to take a tough stand against such rent-seeking behaviour by the banks.

What needs to be done:

- a. Open Bank accounts and ensure they are operationalized.
- b. Create a culture of saving and faith in financial system among the rural poor.
- c. The Reserve Bank of India too will have to come to terms with a few issues, from figuring out what digital payments across borders means for its capital controls to how the new modes of payment affect key monetary variables such as the velocity of money.

Conclusion:

Though it will take time for moving towards a complete cashless economy, efforts should be made to convert urban areas as cashless areas. As 70% of India's GDP comes from urban areas if government can convert that into cashless it will be a huge gain. Therefore different trajectories needs to be planned for migration to cashless for those having bank account and for those not having

Other significant steps towards cashless economy.

Licensing of Payment banks

Digital wallet

e-commerce

National Capital Goods Policy 2016

The National Manufacturing Policy envisaged manufacturing to contribute 25% to GDP and create 100 million jobs. In contrast, till date, manufacturing activity contributes to 17% of India's GDP and only 4 million jobs are estimated to have been created in the sector since 2010. The gap to stated aspiration is large. The Capital Goods sector is a critical element to boost manufacturing activity by providing critical inputs, that is, machinery and equipment.

Hence Government has come out with 1st ever policy for the country's capital goods sector. It envisages carving out a roadmap to boost manufacturing in Capital Goods (CG) sector so that it becomes a part of global value chains apart from mere supply chains.

Brief About Policy:

Vision: The National Capital Goods Policy is formulated with the vision to increase the share of capital goods contribution from present 12% to 20% of total manufacturing activity by 2025.

Objectives of the Policy:

The objectives of the National Capital Goods Policy are to:

- **Increase total production:** To create an ecosystem for a globally competitive capital goods sector to achieve total production in excess of ~Rs. 750,000 Cr by 2025 from the current ~Rs. 230,000 Cr.
- **Increase employment:** Raising direct and indirect employment from the current 8.4 million to ~30 million by 2025.
- **Increase domestic market share:** To increase the share of domestic production in India's capital goods demand from 60% to 80% by 2025 and in the process improve domestic capacity utilization to 80-90%.
- **Increase exports:** To increase exports to 40% of total production (from Rs 61,000 Cr to ~Rs 300,000 Cr) by 2025 from current 27%, enabling India's share of global exports in capital goods to increase to ~2.5% and making India a net exporter of capital goods.
- The policy also aims to facilitate improvement in technology depth across sub-sectors (increasing research intensity in India from 0.9% to at least 2.8% of GDP), increase skill availability (training ~50 lakh people by 2025), ensure mandatory standards and promote growth and capacity building of MSMEs

Significance & Current Status of Indian Capital Goods Industry:

Capital goods Industry is a large sector with a market size of ~ Rs. 282,000 Cr and total production of ~Rs. 230,000 Cr in 2014-15. The sector also provides direct employment to ~1.4 million people, the sector provides indirect employment to ~7 million people and impacts users of capital goods estimated to be 50 times of the direct employment. However, the growth of the sector has been lagging, with domestic market size de-growing at 3.6% per annum and total production increasing by only 1.1% per annum over the last 3 years respectively compared to the Planning Commission targeted growth rate of 16.8% p.a. for production of capital goods during the 12th Five Year Plan period.

Capital goods imports have been growing at a rate of 9.8% p.a. over the last 5 years. The share of imports in the Indian capital goods market has increased from 34% in 2009-10 to 40% in 2014-2015, indicating a looming threat to India's self-reliance and national security. At the same time, the capacity utilization of domestic manufacturers is only about 60-70% across sub-sectors. India's share of global capital goods exports is still significantly sub-scale at ~0.8% only.

Issues & Challenges of Indian Capital Goods Industry:

A wide range of issues has negatively impacted the growth of capital goods production in India. Major issues & challenges are described below.

Issues affecting domestic demand creation: The lack of positive bias towards domestic value addition in public procurement policies, difficult contract conditions, persistent import and use of second-hand machinery with no incentive for replacement, zero duty import under 'Project Imports' and delays in project implementation are the key factors limiting domestic demand.

Issues affecting exports: Key challenges include the inadequate availability of competitive short and long-term financing, non-tariff barriers in export markets denying market access and limited understanding of international market requirements especially by smaller players. India also needs to align its trade policy to the shift in India's export map towards developing regions. More trade agreements are needed with developing countries where India has a comparative advantage.

Issues affecting technology depth: Significant challenges and gaps exist in high-end, heavy-duty, high-productivity and high precision technologies across sub-sectors. Contributors to these gaps include low end user acceptance of new Indian technology, lack of skill availability, weak support infrastructure and low Indian participation in developing international standards. Further, patent processing takes very long and fiscal incentives for R&D are still inadequate.

Issues affecting cost competitiveness: Indian manufacturers are still challenged with respect to cost competitiveness compared to their global peers due to a skewed and state-wise variation in tax and duty structure, prevalence of inverted duty structure for several products and high infrastructure and logistics cost.

Issues related to SMEs: SMEs still face challenges in developing new products and processes due to their smaller scale and inadequate institutional mechanisms, limited access to capital and low awareness and compliance with international standards.

In addition, there are several sub-sector specific challenges. Achieving high growth would need focused collective efforts by all concerned stakeholders - government, industry, end user segments alike; supported by an enabling policy for the capital goods industry.

Key Policy recommendation & way forward:

- To integrate major capital goods sub-sectors like machine tools, textile machinery, earthmoving and mining machinery, heavy electrical equipment, food processing machinery etc as priority sectors under 'Make in India' initiative.
- To create an enabling scheme as a pilot for 'Heavy Industry Export & Market Development Assistance Scheme (HIEMDA)' with a view to enhance the export of Indian made capital goods.
- Strengthen existing capital goods scheme through increasing the budgetary allocation & increasing scope of the present 'Scheme on Enhancement of Competitiveness of Capital Goods' which include setting up of Centers of Excellence, Common Engineering Facility Centers, Integrated Industrial Infrastructure Park and Technology Acquisition Fund Programme, by adding a set of components including technology, skills & capacity building, user promotional activities, green engineering and energy, advanced manufacturing and cluster development .
- To launch a Technology Development Fund under PPP model to fund technology acquisition, transfer of technology, purchase of IPRs, designs & drawings as well as for commercialization of such technologies of capital goods.
- To create a 'Start-up Center for Capital Goods Sector' shared by Department of Heavy Industry (DHI) and Capital Goods (CG) industry/industry association in 80:20 ratio to provide an array of technical, business and financial support resources and services to promising start-ups in both the manufacturing and services space. These services should focus on Pre-incubation, Incubation and Post-Incubation phases of a start-up's growth to ensure that a robust foundation is established.
- Mandatory Standardization which includes, inter alia, defining minimum acceptable standards for the industry and adoption of International Organization for Standardization (ISO) standards in the absence of other standards, to institute formal development program for promoting and framing Standards with Standards Developing Organizations (SDOs) including Bureau of Indian Standards (BIS), international standard bodies, test / research institutions and concerned industry/industry associations.
- To upgrade development, testing and certification infrastructure such as Central Power Research Institute (CPRI), and set up 10 more CMTI like institutes to meet the requirements of all sub-sectors of capital goods.
- To develop a comprehensive skill development plan/scheme with Capital Goods Skill Council and to upgrade existing training centers and set up 5 regional State-of-the-Art Greenfield Centers of Excellence for skill development of CG sector.

- To provide schemes for enhancing competitiveness through a cluster approach, especially for CG manufacturing SMEs. Thrust to be on critical components of competitiveness such as Quality management, Plant maintenance management, Energy management, Cost management, Human Resource management and prevention of corrosion with the Government support to the extent of 80% of the cost.

The National Capital Goods Policy is a major step to unleash the potential of this promising sector and is envisaged to contribute significantly to achieving the overall vision for manufacturing and Make in India. The smooth implementation and effectiveness of the policy will require alignment and joint action of several ministries and departments and have implications on multiple stakeholders and user industries.

Ajay Shankar Committee recommendations on Prior Permission and Regulatory Mechanisms

Recently an expert committee constituted by DIPP to examine the possibility of replacing multiple prior permissions with a pre-existing regulatory mechanism with adequate safeguards submitted its report.

Background

Presently rigid rules and regulations, multiple prior permission, system of government certification or clearance on various areas increases the transaction cost for companies which makes it difficult more a company to start a business in India. No wonder India is ranked 130th in the ease of doing business. This committee was constituted to improve the above mentioned situation.

Key Recommendations of the committee.

3rd party certification

- It recommended that India needs to move towards a system of 3rd party certification in most areas of regulation with accredited certifying agencies working jointly with sectoral regulators. The expert committee observed that third party certification is the practical way forward, with other economies such as the EU also moving towards unbundling of regulatory function.
- For better compliance and credibility of the process, it recommended that some percentage of the 3rd party certification would need to be subject to random concurrent audit with stiff penalties cumulatively leading to even withdrawal of accreditation for laxity,

Start ups

- For start-ups, the committee had suggested that steps like earmarking of mixed land use redevelopment or Greenfield development;

exempting them from the requirement of seeking building plan approvals would give a boost to the ecosystem.

- Start-ups may be given the special dispensation of complying with labour laws on their own without being subject to inspection and/or enforcement for a period of 3 years, or, till their workforce exceeds 100, whichever is earlier.

Environment

- India should seek to adopt Global Best Practices in setting up standards and norms for emissions, effluents and solid waste for different categories of Industries.
- Promoters of Industrial Parks, Zones and Areas should be allowed to obtain Environment Approval for their whole area for setting up of identified environmentally homogenous or similar industries with a specified level of final gross annual production and environmental load.
- For globally mature industries such as steel, cement, power etc. for which international environment standards exist, environmental appraisal need not go into the internal processes by which prescribed norms would be complied with.

Other recommendations

- It suggested that the website of the department of industrial policy and promotion should have a comprehensive list of clearances needed for any economic activity anywhere in the country, and this should include clearances at the central, state as well as municipal authority level.
- It has suggested the ministries of environmentally sensitive sectors such as power; petrochemicals, pharma and steel should join with the ministry of environment & forest and prepare a 20 year perspective geographical plan indicating preferred locations in prioritized categories for their anticipated projects, so that the negative impact of environment is minimized.
- It was recommended that the listing of clearances at the level of the Union Government and State Governments should be evolved in an open source Wikipedia type of process in which all concerned stakeholders can participate.

Significance of this report

- These recommendations if implemented can bring down the transaction cost and time for Indian manufacturers significantly and improve the ease of doing business in India.
- Implementation of these recommendations could also boost start ups in India and thus could create the jobs which India needs desperately.

2. POLITY + CONSTITUTION + SOCIAL ISSUES

Judicial Selection and Transfer

Independence of Judiciary is bedrock of the democracy. This independence must be combined with accountability and responsibility. In recent there have been various issues raised regarding the issue. (Justics C.S. Karnan issue).

Process of selection and transfer

- At present the selection and transfer of Judges of Supreme Court and High Court is done by President on consultation with collegiums system.
- For selection to SC collegium consists of CJI and 4 senior most judges.
- In case of selection and transfer of HC judges, the collegiums consists of CJI, 2 senior most judges of the SC and CJ of the concerned High Courts.
- The proposal of NJAC to replace collegium system was struck down by SC and after that the executive is working on a New Memorandum of Procedures to reform the collegium system

Criteria for transfer

The transfer of judges is done in cases like:

- When a judge is appointed as Chief Justice he is generally transferred to another HC.
- In case when a lawyer from the bar is appointed as Judge or when a judge is promoted to HC. These transfers are done to avoid instances of favoritism.
- Also in instances of any complain of corruption or any other charges which does not lead to his impeachment, the judge is transferred to another High Court. These are called punishment transferring.

Recent Issue:

- Recently CJI led collegium ordered the transfers of High Court judges. Out of these the transfer of Madras HC Judge, Justice Karnan was in limelight because of his staying the order and accusing the transfers being biased because of his belonging to Scheduled Caste.
- He was being transferred because of his misdeamenours and misadventures in Madras High Court.
- Earlier also a judge accused of corruption was transferred from Punjab and Haryana High Court to Guwahati HC.

- This process of transfers also tantamount to transferring errant judges rather than taking actions

All these instances bring to the fore issue of selection, transfer of judges and judicial standards & accountability. What should be done when there is a complaint against judge and how to ensure transparency, merit and accountability in appointment?

Accountability

The present process in case of complaints against a judge consists of an in-house mechanism and impeachment proceedings.

- In the "in-house procedure" to tackle errant judges the chief justice of India constitute a 3 member committee consisting of 2 chief justices of the high courts and a high court Judge.
- If the committee recommends removal of the judge, the CJI can advise the concerned judge to resign or seek voluntary retirement.
- If he unwilling so to do, the CJI can order that no judicial work be allocated to the judge and inform the president and prime minister of the same with a request to initiate the proceedings for removal of the judge.

This procedure is infrequently used; the proceedings are wrapped in secrecy; the judge continues to hold the post, and if the impeachment motion fails, it may not be possible to deny him work. So in such case it depends upon whether judge has a sense of morality or not.

Therefore there is need to pass the Judicial standards and Accountability bill as soon as possible which will establish an institutionalized mechanism to tackle such cases.

Selection:

As in case of appointments the New Memorandum of Procedures by executive suggests measures which can improve the selection process which are given below.

- It seeks to introduce performance appraisal based on "merit and integrity" as "prime criteria" as a standard for appointing chief justices of high courts and Supreme Court judges.
- Evaluation of judgments delivered by a high court judge during the last 5 years and initiatives undertaken for improvement of judicial administration should be a yardstick of merit for promotion as chief justice of a high court.

- c. It has also proposed selection of up to 3 lawyers and jurists as Supreme Court judges.
- d. Advocating "fair representation" of all high courts in picking SC judges, the government has said preference should be given to the chief justices of high courts, keeping in view their inter-se seniority.
- e. Documentation of the reasons why a senior judge was overlooked for elevation,
- f. At present, no records are put in public domain by the Collegium to show why a judge is not elevated to the Supreme Court despite his seniority.
- g. For appointing lawyers and jurists as judges, the government has proposed that "it shall be open to all judges of the Supreme Court" to make suitable recommendations to the Collegium
- h. Establishment of a permanent secretariat to maintain records.
- i. HC acting CJ term must be limited to 3 months.
- j. Union Law minister must seek CJI's recommendation for appointment of his successor at least a month before his retirement.
- k. A notice for vacancies of judges should be put up on the website of the high courts at the beginning of the year for appointments.

The measure suggested by MoP can help in ensuring the transparency without compromising on the independence of judiciary. They will also help in reducing vacancies as establishment of permanent secretariat is proposed. This will further help in reducing pendencies.

The MoP also shows that executive and judiciary are not at loggerheads but are ready to cooperate to better governance to the people of India.

EUTHANSIA Issue: An Analysis

- Euthanasia, in the simplest terms, is mercy killing for those patients for whom there is no end to their pain. In India This issue came to limelight during Aruna Shahbaug case where a friends and relatives of ex nurse who was in vegetative state from last 3 decades requested the supreme court to grant permission to end her misery by invoking euthanasia.

What is Euthanasia?

- Generally, the word euthanasia is defined as the, act or practice of painlessly putting to death or withdrawing treatment from a person suffering an incurable disease. Euthanasia is intentionally killing another person to relieve his or her suffering.
- There are 2 types of euthanasia: Passive euthanasia and Active euthanasia. Active euthanasia is defined as taking an immediate action

such as using lethal injection to painlessly put a terminally-ill patient to death. Passive euthanasia is withdrawing treatment while the life of the patient is still dependent on it and when it is believed that treatment is more burdensome than beneficial. Passive euthanasia allows the patient to die naturally and is often considered more acceptable.

Current legal status of Euthanasia in India

- Prior to Aruna Shahbaug case both active and passive Euthanasia was not allowed in India. In Aruna Shahbaug case the Supreme Court allowed passive Euthanasia, However it did not grant permission for Active Euthanasia.
- Still there is no law made by parliament in India about Euthanasia. The court also clarified that until Parliament enacts a law, its judgment on active and passive euthanasia will be in force.
- In Aruna case the supreme Court has held that there is no right to die (suicide) under Article 21 of the Constitution and attempt to suicide is a crime vide Section 309 Indian Penal Code , the Court has held that the right to life includes the right to live with human dignity, and in the case of a dying person who is terminally ill or in a permanent vegetative state he may be permitted to terminate it by a premature extinction of his life in these circumstances and it is not a crime as per section 309 of IPC i.e. Euthanasia does not come within the ambit of suicide.

Should Euthanasia be legalized Pros:

- In a country like India where hospitals are overcrowded and we face shortage of beds and have too many patients. Some argue that they should let those die that do not have a chance of living on. In that way there could be more room for patients with diseases that can be cured.
- It provides a way to relieve extreme pain. It provides a way of relief when a person's quality of life is low.
- In a democracy a person has the right to decide what he or she wishes to do with his or her life. A person who is suffering has the right to choose what should be done with his or her life. He or she may choose to get treated and he also has the freedom to not choose treatment. If treatment is unavailable and a person is unable to bear the suffering, then it is his or her right to end the painful life. Ending such a life in a medically monitored manner is the most rational thing to do. Instead of people who are suffering immensely ending their lives in brutal or horrifying ways, it is better for a doctor and the person's family to assist in the process.
- Euthanasia has far-reaching financial implications. There are many people in India who are in

vegetative state even if we spend any amount on them they would never recover. One would simply prolong the life of suffering and pain while spending a lot of money. There are thousands of cases where a family has gone bankrupt to ensure medical care for a terminally ill person or to keep up the treatment for an incurable disease. Prolonging such lives would only lead to heartache, financial challenges and eventual futility. Instead, euthanasia allows peaceful death in a medically monitored environment. The person suffering would not suffer. The family or loved ones to be bereaved will not spend a fortune which would yield them no returns.

- Euthanasia can save life of many other people- When people become old and especially when they suffer from terminal illness or incurable diseases, they still have vital organs which can be donated. If the person dies naturally and doesn't manage to get the organs donated, then they are of no use. Wrong methods of suicide or prolonging the illness can also damage the vital organs which would be of no use. Euthanasia allows the patients to die under medical supervision and the healthy vital organs can be donated to those in need. This can pave the way for a much better world.

CONS

- Mercy killing is morally incorrect and should be forbidden by law. It is homicide and murdering another human cannot be rationalized under any circumstances.
- Euthanasia can be misused. Many psychiatrists are of the opinion that a terminally ill person or someone who is old and suffering from an incurable disease is often not in the right frame of mind to take a call. Such a person deciding to die may not be a rational call.
- Family members deciding on behalf of the patient can also lead to abuse of the law legalizing euthanasia. Suppose a very rich person is terminally ill and he has already in his will appointed his relative as his successor, There are chances that in a lust to appropriate property as early as possible this relative might give permission to invoke euthanasia on that rich person even if there are chances to save the person.
- Many religions think that euthanasia is immoral. Some religions regard it as a type of murder. There are chances that legalizing Euthanasia in India would hurt the feeling of many devout followers of the religion.
- There is always a chance of medical miracle which is not being accounted for when euthanasia is opted for. A person may not suffer forever as is expected in certain situations. A person may get better and that possibility is completely rejected when euthanasia comes into the picture.

- Mercy killing would lead to the 'slippery slope effect', which is when those who are unable to voice their desires are put to death like the senile, or a baby or someone in a coma and so on. It would cause decline in health care and cause victimization of the most vulnerable sections of society. Perhaps, mercy killing would transform itself from the 'right to die' to 'right to kill'?

International status regarding Euthansia?

- In April 2002, the Netherland became the 1st country to legalize euthanasia and assisted suicide. It imposed a strict set of conditions: the patient must be suffering unbearable pain, their illness must be incurable, and the demand must be made in "full consciousness" by the patient. In 2010, 3,136 people were given Euthanasia under medical supervision.
- In USA Doctors are allowed to prescribe lethal doses of medicine to terminally ill patients in 5 US states.
- As of October 2015, human euthanasia is legal in the Holland, Belgium, 5 states of USA, Ireland, Columbia, Luxembourg etc.

Conclusion

- The most common argument against hastening the end of a patient's suffering is that no one can be denied the right to life. However, life is not only a heart pumping blood into vessels; life is not merely a pair of lungs lying behind a heaving chest; life is not various other organs being whipped to work with advanced machines. Life is not just the greenish undulating patterns on the screen of a monitor. Life on 'Life Support System' is merely existence devoid of even basic dignity which is the natural right of every human being. Can we call mere existence, without any awareness of it, life? Is prolonging the sufferings of such victims of fate not a disservice to them? Therefore if a patient is in extremely vegetative state where there are no chances of revival a permission for mercy killing should be granted to him, However in order to ensure that this law is not misused the person's medical condition should be checked by 4-5 different boards of doctor so that it is absolutely confirmed that under no circumstances the patient condition could be brought back to normalcy.

Should Supreme Court be Under RTI?

RTI act was passed with intent to bring transparency and accountability in the governance. It mandates timely disclosure of information by public authorities. It was considered as an empowerment tool and democratizing tool.

This act also provides exemption from disclosure of certain information if it adversely affects India's security, impedes investigations etc.

Criteria for bringing organizations under RTI and their exemption:

- Act covers all constitutional authorities, including the executive, legislature and judiciary; any institution or body established or constituted by an act of Parliament or a state legislature.
- Certain organizations like security agencies and information which affects national security is exempted from the provisions of the act.
- The act calls for all public organizations to appoint PIO and ensure record keeping in such a manner that the information can be disseminated in an efficient and legible manner.

RTI and Supreme Court and analysis of the judgment

- SC Recently refused to provide information sought regarding the duration for which judgments were reserved citing the reason that under the RTI Act, only existing information kept with the public authority could be asked for. There was no provision for a direction to collect and collate information in a manner sought by the RTI applicant.
- Though the CIC had directed the apex court's central public information officer to collate this information in 2011.
- It overlooked the importance of Section 4(1)(a) of the RTI Act which says all information is required to maintain its records in a manner which facilitates the right to information,
- Even Delhi and Bombay High Courts maintain data on their judgments on both dates i.e., on which a judgment was reserved and when the judgment was delivered.
- SC itself in 2011 in (Anil Rai v State of Bihar), while expressing concerns at reserving judgments had said that, "Delay in disposal of the cases facilitates the people to raise eyebrows, sometimes genuinely which, if not checked, may shake the confidence of the people in the judicial system."

Accountability issue, past examples of SC's accountability

- In past also SC has refused to come under any kind of scrutiny. It declared NJAC which attempted to reform the process of appointments as void as it violated the independence of Judiciary.
- Recently SC declined to disclose the medical expenses incurred by judges.
- The in-house mechanism of tackling errant judges is also shrouded in secrecy and inefficiencies.

- There is huge delay in pronouncements of judgments, vacancies in courts and pile of cases.

Should SC set an example for Political parties:

It is said that justice delayed is justice denied. Reserving of the judgments for long years is manifestation of that only. The SC decision is rubbing salt on that.

SC who vouches for transparency in other organs of the government should lead by example. In the present case no where the independence of the judiciary was impacted. It was simply an issue of organizing information. SC must have accepted its duty as a responsible institution and accepted that the concerned information will be provided.

The issue:

Batra, the original RTI applicant, had sought information regarding how long judgements were reserved by the court for 2007-09. Since this information was not readily available, the CIC directed the apex court's central public information officer to collate this information in 2011. The Supreme Court appealed against this order before a single judge of the Delhi high court, who said that while the information for 2007-09 was not required to be given, the registry should collect this information for the future. However, on appeal before the 2 judge bench, this was overturned. Now SC also found no wrong in the 2 judge HC bench.

Instances of judgments reserved for long:

In a case, Shrimati Selvi v. State of Karnataka, a case about brain mapping and polygraph tests, judgement was reserved for 4 years. This information will have no adverse impact on the independence of the judiciary

LAW Ministry moots for National Social Security Authority

The Labour Ministry has mooted the idea of forming a National Social Security Authority, chaired by Prime Minister Narendra Modi, and a separate Social Security Department within the ministry to provide social security to the entire population.

What do we mean by Social security?

- Social security is a program in which the government provides money to people who are unable to work because they are old, disabled, or unemployed. It is funded usually by mandatory payroll contribution from both the employees and the employer and from the government tax revenue.

Why do India require social security authority?

- Social security is still an underdeveloped concept for a country where at least 30% of the population continues to live in poverty and where old age is often accompanied by extreme destitution for many.

- The current social sector program covers only a small portion of the population and is primarily employer driven, limiting its scope to help the vast majority of people.
- Around 50% of Indians work in Agriculture sector where they enjoy no social security. Around 92% of India's urban workforce are employed in informal sector and though number of schemes like RSBY, Atal Pension Yojana have been launched for them their impact on granting true social security to the Workers is still found to be not adequate.

Key Features of Proposed National Social Security Authority

- The authority may have all the ministers and secretaries of all ministries dealing with social security programmes along with state government officials as members. It will be headed by The Prime minister
- The functions of the authority would be mainly to formulate the National Policy on Social Security and to co-ordinate the central and state level programmes and to ensure that the objectives of the policy are achieved within the time frame prescribed.
- The proposed Social Security Department within the Labour Ministry will provide "policy inputs" and "secretarial services" to the body.
- The Ministry note proposes a 4 tier system to cover the entire population of the country, including both formal and informal sector workers, through a common Social Security Code.
- The 1st tier would include the "destitute and people below the poverty line," the second tier would have workers in the unorganized sector who may be covered under a subsidized scheme and the 3rd tier would cover workers who can, with the help of employer, can make contribution to the schemes.
- The 4th tier would include people who are comparatively affluent and can make their own provisions for meeting contingencies or risks as and when arise
- The note "visualized" that the social assistance programmes for the first tier shall be based on tax revenue.

Schemes Launched by Government in Recent Years to Improve Social Security

(A) The Pradhan Mantri Suraksha Bima Yojana

- The Pradhan Mantri Suraksha Bima Yojana (PMSBY - Scheme 1 - for Accidental Death Insurance) offers accidental death cover for all applicants for a year starting from June 1, 2015 to May 31, 2016. The total coverage, or sum insured, under the scheme is Rs 2,00,000 for death and

Rs 100,000 for partial disability. The premium for the scheme is fixed at Rs. 12 per annum making it one of the cheapest accidental insurance schemes in the world. With just Rs. 1 per month, every Indian citizen within the age group 18-70 years can now have an accidental death and disability insurance. The premium can be deducted from your savings bank account through an auto debit facility.

(B) The Pradhan Mantri Jeevan Jyoti Bima Yojana

- The Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY -- Scheme 2 -- For Life Insurance Cover) is available for people within the age group 18-50 years.
- With a premium payment of just Rs. 330 per year, which can be auto-debited from your account, one can get a life cover of Rs. 200,000 for death occurring out of any reason.
- If you are joining the scheme before completing 50 years, the coverage can be extended up to the age of 55 years subject to payment of premium.

(C) Atal Pension Yojana

- Atal Pension Yojana Scheme was introduced by Government of India in the year 2015-16. Main aim of starting this Pension Yojana Scheme was to provide income security to society in the old age. This scheme replaced the earlier swavalamban scheme of the UPA government.

(D) RSBY (Rashtriya Swasthya Bima Yojana)

- RSBY is a health insurance scheme for below poverty line families. It was launched for workers in the unorganised sector during the 2007-2008 fiscal policy.
- This scheme provides for IT enabled and smart card bases health insurance including maternity benefit of close to INR 30,000 per annum on a family floater basis to BPL families and 11 occupational groups in the organised sector .
- The Unorganised Workers Social Security Act 2008 has come into force w.e.f 31st December 2008 and it covers 10 social security schemes benefiting workers in the unorganised sector including RSBY.
- RSBY provides BPL families with freedom to choose between public and private hospitals.

(E) National social security programme

- The National Social Assistance Programme (NSAP) is a welfare programme being administered by the Ministry of Rural Development. This

programme is being implemented in rural areas as well as urban areas.

- The programme was 1st launched on 15th August 1995 as a Centrally Sponsored Scheme comprising the National Old Age Pension Scheme (NOAPS), National Family Benefit Scheme (NFBS) and National Maternity Benefit Scheme (NMBS).
- Presently NSAP now comprises of the following five schemes:-
- Indira Gandhi National Old Age Pension Scheme (IGNOAPS): All persons of 60 years (and above) and belonging to below the poverty line category according to the criteria prescribed by the Government of India time to time, are eligible to be a beneficiary of the scheme. The pension amount at present is 400 per person per month per person for age group 60 to 79 years and Rs. 500 per person from age group 80 and above. The states are supposed to contribute an equal amount vis-a-vis the scheme
- Indira Gandhi National Widow Pension Scheme (IGNWPS): BPL widows aged 40-59 years are entitled to a monthly pension of Rs. 300/-.
- Indira Gandhi National Disability Pension Scheme (IGNDPS): BPL persons aged 18-59 years with severe and multiple disabilities are entitled to a monthly pension of Rs. 300/-.
- National Family Benefit Scheme (NFBS): Under the scheme a BPL household is entitled to lump sum amount of money on the death of primary breadwinner aged between 18 and 64 years. The amount of assistance is Rs. 20,000/-. Annapurna: Under the scheme, 10 kg of food grains per month are provided free of cost to those senior citizens who, though eligible, have remained uncovered under NOAPS.
- Annapurna: Under the scheme, 10 kg of food grains per month are provided free of cost to those senior citizens who, though eligible, have remained uncovered under NOAPS.

(F) EPFO

- The Employees' Provident Fund Organisation (EPFO) is a statutory body under the Ministry of Labour and Employment that administers social security regulations.
- The EPFO covers pensions and survivors' benefits in the event of an employee's death. It is compulsory for all workers employed by companies with more than 20 staff. Employers must apply for the fund on behalf of their workers.
- Since October 2008, all foreigners employed in India have been subject to the terms of the EPFO under the category of "international workers".

- The employee is required to contribute 12% of their salary to the EPFO, which is automatically deducted by the employer. Employers must match this 12% contribution. Employers are legally required to deduct these contributions and remit them to the EPFO.
- Tax-free interest is earned on contributions made to the fund at a specified rate, which is updated regularly by the government. For 2012-13, the rate is 8.8%.

Issues with present Social security schemes in India

- Instead of launching so many schemes on social security the numbers of Indians who are covered or benefitted from these schemes are very less. The situation is much worse in unorganized sector. There are various reasons why current social security framework in India failed to achieve desired results. The International Labour Organization's World Social Protection Report 2014-15 shows less than a fourth of India's population above the statutory pensionable age receives any kind of pension. Most of our social security schemes face weak beneficiary selection criteria, age old storage infrastructure, ineffective implementation and wide scale corruption
- Fragmented ownership structure and lack of coordination-Most of the pension or insurance schemes in India are run by different ministries and they follow a silo approach. There is hardly any coordination among ministries. This adversely affects the implementation of the schemes.
- Low monetary benefits-The amount provided by government under the current social security schemes do not in reality provide any real social security to people since it is too low for sustenance. Under the Indira Gandhi Old Age Pension Scheme and Widow Pension Scheme, the Central government contributes only Rs. 200 and Rs. 300 per month respectively. Even under ATAL Pension Yojana the maximum amount one can get under it is RS 5000 per month and that too after 20 years when practically RS 5000 would mean nothing.
- Low expenditure- India spends 1.4% of its GDP on social protection, among the lowest in Asia, far lower than China, Sri Lanka, Thailand, and even Nepal.

Conclusion

India needs to have an umbrella for social security schemes to check duplication of benefits for some beneficiaries while a section of people is left out of it. NSSA will help to rectify this problem since it will have all the ministers and secretaries of all ministries dealing with social security programmes along with state government officials as its members and it would also coordinate different schemes and programmes launched

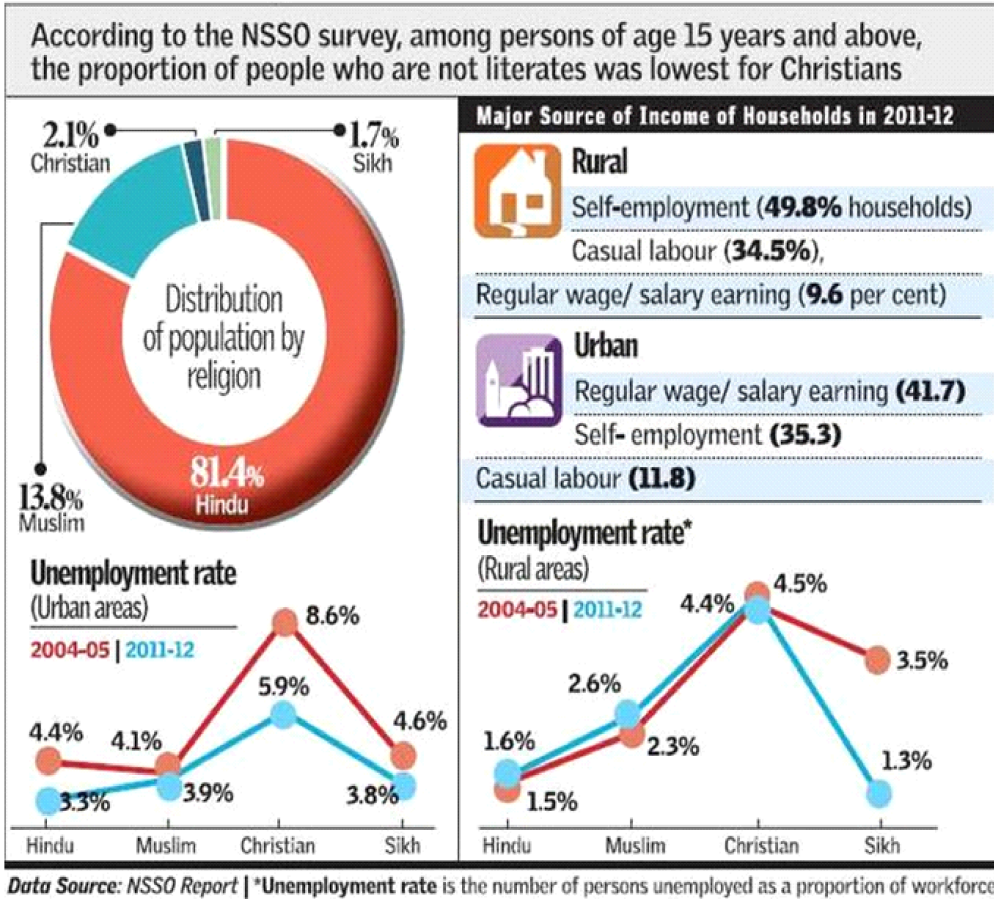
by centre and states on social security leading to lack of duplication.

NSSO survey on Unemployment in India

- NSSO recently released data on unemployment in India. It was the 68th round of the Employment and Unemployment Situation among Major Religious Groups in India report.

- While the unemployment rate in rural areas has decreased for Sikhs (from 3.5 to 1.3%) - now the lowest across all religious groups - it has slightly increased for Muslims (from 2.3 to 2.6%). At 3.3%, Hindus have the lowest unemployment rate in urban areas.
- Self-employment is the major source of income for almost half the households, across all religious groups, in rural areas, followed by casual labour.

MORE DEGREES, BUT NOT ENOUGH JOBS



- In urban areas, the proportion of households deriving major income from regular wage or salary earnings is the highest. Half the Muslim households in urban areas have self-employment as major source of income, the highest among all religions, while regular wage or salary earnings was the highest for Christians with 45.8 per cent households.

What does the survey indicate?

- The survey confirms the apprehensions shown by many experts that India is facing rural distress. As survey clearly indicates that all religious groups registering an increase in unemployment in rural areas.
- The report states that the unemployment rate is 1.7% in rural and 3.4% in urban areas. In its previous report of 2013, unemployment rate was 1.5% in rural and 4.8% in urban areas.

Key findings of the survey

- The unemployment rate in urban areas reduced from 4.5% in 2004-05 to 3.4% in 2011-12, the unemployment rate in urban areas reduced from 4.5% in 2004-05 to 3.4% in 2011-12.
- According to the survey, which was conducted in 2011-12, the unemployment rate across all the religious groups in rural areas was on the lower side than those in urban areas for both males and females.
- The most peculiar finding of the survey is that Christians which are supposed to be a better off community have the highest rate of unemployment in both rural (4.5%) and urban (5.9%) areas in 2011-12. The rate in urban areas for Christians stood at (8.6%) in 2004-05 while the rural rate stays constant.

- The unemployment rate in India is even lower than Many developed countries, however survey of NSSO on number of jobs created reveal that there are very less number of jobs created in formal sector in last 2 decades, Therefore this low unemployment figure indicates that most jobs created in last few years are either in informal sector or in unorganized sector.

Why do Christians have largest unemployment rate?

- Unemployment level in India is highest among those people who are richer and more educated. The reason is that poor people can't afford to stay unemployed, and hence, opt for any kind of work,

irrespective of the nature of the job. The better off have the capacity to be unemployed as they look for the right job. Christians are the most educated group, hence unemployment rate is higher among them

- Among the persons of age 15 and above, the proportion of people who are not literates was the lowest for Christians. Also, the proportion of persons with educational level secondary and above is highest for Christians.

Key terms

(a) **NSS SURVEY-** The quinquennial Employment and Unemployment surveys of National sample Survey (NSS) are the primary sources of data on various indicators of labour force at National and State levels. These are used for planning, policy formulation, and decision support and as input for further statistical exercises by various Government organizations, academicians, researchers and scholars. NSS surveys on employment and unemployment with large sample size of households have been conducted quinquennially from 27th Round (October 1972 - September 1973) onwards. These surveys provide data on various indicators of labour force at National and State levels

(b) **How is unemployment measured in India?**

- The National Sample Survey Organization (NSSO) provides three different estimates of employment and unemployment based on different approaches / reference periods used to classify an individual's activity status. These are the:
 - Usual status approach with a reference period of 365 days preceding the date of survey
 - Current weekly status approach with a reference period of 7 days preceding the date of survey
 - Current daily status with each day of the 7 days preceding date of survey as the reference period.
- In order to find out whether an individual is employed or unemployed it needs to be 1st determined whether h/she belongs to the 'Labour Force' or not, which in turn depends on the Activity Status of the individual during the chosen reference period.
- Activity Status refers to the activity situation in which the individual is found during the reference period with respect to his participation in economic or non-economic activities.
- The NSSO defines following 3 broad Activity Status
 - Working (engaged in an economic activity) i.e. 'Employed'
 - Seeking or available for work i.e. 'Unemployed'
 - Neither seeking nor available for work.

- All those individuals having a broad activity status as i) or ii) above are classified as being in the Labour Force and those having activity status iii) are classified as outside the Labour Force. Thus labour force constitutes of both employed and unemployed.
- Labor force (also called work force) is the total number of people employed or seeking employment in a country or region. One is classified as 'not in labour force', if he or she was engaged in relatively longer period in any one of the non-gainful activities.
- Unemployment rate is the percent of the labor force that is without work.

$$\text{Unemployment rate} = \left(\frac{\text{Unemployed Workers}}{\text{Total labor force}} \right) \times 100$$

- The NSSO collected employment data based on 'usual status (UPS)' only up to its 8 round. However since the beginning of the 27th round (1972-73), quinquennial(5-yearly) surveys were being conducted by NSSO to collect employment-unemployment data based on all the three approaches of UPS,CWS and CDS.

Lok Sabha has passed Election Laws (Amendment) Bill, 2016

- Lok Sabha has recently passed Election Laws(Amendment) Bill, 2016 to amend 2 electoral laws to allow a limited delimitation exercise in West Bengal for granting voting rights to people who became Indian citizens following the exchange of enclaves with Bangladesh.
- The bill aims to empower the Election Commission to carry out delimitation in areas that were affected by the enactment of the Constitution (100th Amendment) Act, 2015 and seeks to amend Section (11) of the Delimitation Act, 2002 and Section (9) of the Representation of the People Act, 1950.
- The Bill amends the Acts in order to give additional powers and responsibilities to the Election Commission. It states that the Election Commission may amend the delimitation order to:
 - Exclude from the relevant constituencies the Indian enclaves that were transferred to Bangladesh, and
 - Include in the relevant constituencies the Bangladeshi enclaves that were transferred to India.
- The said bill will enable the Election Commission to carry out a limited delimitation of assembly and

parliamentary constituencies in Cooch-Bihar district of West Bengal following the exchange of 51 Bangladeshi and 111 Indian enclaves last year. Under this agreement, 51 Bangladeshi enclaves (Chhitmahals) were added in the Indian Territory and 111 Indian enclaves in Bangladesh territory.

- The enclaves were exchanged pursuant to the 1974

Land Boundary Agreement and 2011 Protocol and Instruments of Ratification during Indian Prime Minister visit.

- It will help to grant voting rights to people who became citizens of the country following the exchange of enclaves between India and Bangladesh and is seen as a significant step in ties between India and Bangladesh.

3. International Relations + Defense + Security

Djibouti, Myanmar and Sri Lanka Anchor China's Maritime Silk Road

The contours of Chinese MSR (Maritime Silk Route) are quickly unfolding. China has increased its both economic and military presence through this initiative.

Recent events:

- a. A military base in Djibouti which is strategically located connecting Red Sea and Gulf of Aden. Recently China has also signed a deal to build Free Trade Zones in the country and providing nearly \$12.4 billion that Djibouti intends to invest by 2020.
- b. China has also signed a deal to develop an Industrial Park and a deep water port in Kyaukphyu in Myanmar. This facility in Bay of Bengal will help China avoid Strait of Malacca, secured by USA.
- c. Madaya Island Terminal and the Yanbye Island Terminal that China is building in Kyaukphyu has already added to the energy security of China as gas and oil pipeline have been laid to Chinese Yunnan Province from these places.
- d. China has also indicated to the revival of Colombo Port city and Hambantota SEZ project in Sri Lanka.

About Chinese One Belt, One Road (OBOR) initiative-

1. What is it?

- a. One Belt, One Road is a Chinese initiative unveiled by Chinese leader Xi Jinping in 2013
- b. It consists of 2 components,
 - i. **Belt** : Silk Road Economic Belt (SREB)-
 1. It involves land corridor connectivity from China to Central Asia and West Asia, going all the way to Europe;
 2. Also includes China-Pakistan Economic Corridor (CPEC) and the Bangladesh-China-India-Myanmar (BCIM) Economic Corridor
 - ii. **Road** : Maritime Silk Road (MSR) -
 1. MSR involves maritime connectivity through the Strait of

Malacca to India, and onwards to West Asia and East Africa

- c. This will involve
 - i. Building physical infrastructure (highways, railways, ports in coastal nations, fibre-optic lines)
 - ii. Establish free trade zones (by coordinating customs, quality supervision, e-commerce etc)
 - iii. Increasing cultural exchange etc.
- d. Asian Infrastructure Investment Bank (AIIB) will be used to fund it. Most of the countries have joined it.



2. Purpose:

- a. China's aim to take a bigger role in regional & global economics and geopolitics;
- b. Invest the surplus it has accumulated;
- c. According to China it will generate trade above a jaw-dropping \$2.5 trillion;
- d. Increase its export further;
- e. To help balance the economic inequities between the highly developed coastal region and under-developed interior of China;
- f. China is heavily dependent on the sea trade (~80% of crude oil imported via Strait of Malacca), so wants to reduce its dependence on the Straits of Malacca, militarily dominated by the U.S;
- g. Along with AIIB it goes a long way as an outreach program;
- h. Increasing its presence in Indian ocean
- i. Can also have hidden military-strategic intentions as details are not out;

- j. It's an answer to US Pivot to Asia; there are plans of Australia joining the Indo-Japan-US trilateral;
- k. By way of developing infrastructure in other countries it wants to portray its benevolent/soft side as opposed to the image of growing military power involved in number of disputes'

3. As a threat to India's national security:

- a. The biggest threat comes from the China-Pakistan Economic Corridor (CPEC), which is an integral part of SREB in 2 ways:
 - i. See notes of CPEC from China-Pak notes
- b. MSR poses **two** broad challenges to India:
 - i. Poses challenge to India's maritime presence in Indian Ocean and even South-China sea.
 - ii. US, Australia and ASEAN countries want India to play a larger role in this region.

- c. Will strengthen the string of pearls; will reach Gwadar, China is also planning to extend railway line to Nepal; will increase presence in SAARC

4. Way forward:

- a. Has India joined it?
- b. Given India's strategic location in Asia, India is an important country for the execution of the 'Silk Road' projects. So what must be India's response?
- c. India should ask China to reveal more details;
- d. Openly articulate its claims over POK on a regular basis, a matter that is closely linked to India's sovereignty. It should raise the issue with China at bilateral level- ask China to reconsider the execution of CPEC-related projects.
- e. If it joins then should bargain with China for more access to its market and take steps to tilt the balance in trade.

5. Steps taken by India:

Project Mausam	<ol style="list-style-type: none"> 1. Launched in June 2014 2. It is a Ministry of Culture project to be implemented by Indira Gandhi National Centre for the Arts (IGNCA) 3. Aim : To understand how the knowledge and manipulation of the monsoon winds shaped interactions across the Indian Ocean 4. Activities under it : <ul style="list-style-type: none"> a. At the macro level : Re-establish communications between countries of the Indian Ocean world b. At the micro level : Understanding national cultures in their regional maritime milieu. 5. According to many it is an answer to growing Chinese maritime silk route. 6. Pursue it more aggressively
Indian Ocean Maritime Security Group	<ol style="list-style-type: none"> 1. Launched in 2011 2. Members : India, Sri Lanka, Maldives, Seychelles and Mauritius 3. Task: To share information about illegal activities (piracy, counter terrorism, drug trafficking) in Indian Ocean

1st Train From China Arrives in Iran: (About One Belt One Road (OBOR))

- These trains would eventually be bound for Europe, helping Tehran develop into a transit centre between the 2 regions.
- The 1st train from China's trading hub of Yiwu has arrived in Tehran, signalling Iran's firm integration in the Beijing led-Belt and Road connectivity initiative along the New Silk Road.

- The train ferrying 32 containers completed its 14-day journey, covering over 10,399 km, after passing through the arid landscape of Kazakhstan and Turkmenistan in Central Asia.
- Analysts point out that by joining China on the railway map, Iran was establishing solid structural linkages with Eurasia along the Silk Road Economic Belt.
- Iran is currently in desperate need of investment for infrastructure construction. However, as oil prices

are low now, Iran's revenue in this sector has seen sharp decrease. At the same time, China is promoting the belt and road initiative. Iran is expected to become one of the major participants of that initiative.

- In China, there is anticipation that with the recent lifting of sanctions, Iran's energy infrastructure, including its trans-border pipeline network will grow—a move that is likely to further deepen Tehran's strategic linkages with Eurasia.
- The train's journey was 30 days shorter than the time usually taken by ships to sail from Shanghai to Iran's Bandar Abbas port.
- With the lifting of nuclear-related sanctions, Iran is being heavily courted by China. Beijing sees the country as a key part of its “One Belt, One Road” policy to increase trade and open new markets for its firms as its domestic economy slows.

The 2 states as it countries are also cooperating on a high-speed rail project linking Tehran to Iran's Northeastern holy city of Mashhad,

Nepal Prime Minister Visit to India:

Nepal's newly elected Prime Minister Oli visited India after Madhesi's agitation against some controversial provisions of new constitution & as a result of it India Nepal relation hit the lowest point.

The visit assumes significance in normalizing the relations, restoring harmony and clearing the misunderstanding between the two neighbours.

Main Features of the visit:

- During Oli's state visit, the two sides signed 9 agreements, ranging from infrastructure to rail and road transit
- These agreements include utilisation of Indian grant of USD 250 million to Nepal for post-earthquake reconstruction in four sectors - housing, health, education and cultural heritage.
- Strengthening of road infrastructure in the Terai area of the Himalayan nation, transit routes, rail transport.
- The 400 KV Muzaffarpur-Dhalkebar transmission line.
- The two leaders also expressed their commitment to not allow the open border between the two nations to be misused by terrorists and criminals.

Indian Government welcomed this efforts of Nepal's politicians for framing & adopting the new constitution. however its assertion that success of constitution, depends upon the consensus, dialogue & inclusion of all sections of Nepal. India still do not endorse the constitution of Nepal fully and road to peace & stability

in the Himalayan country passes through the inclusion of demand's of Tarai people of Nepal.

In this wake Oli is learnt to have assured that the pending issues regarding the demands of the Madhesi would be addressed in a time-bound manner, however he maintained that the Constitution making process was inclusive- progressive and without discrimination and the Constitution was passed by an assembly of 92% of participation and that 85% voted for the constitution.

There was also the absence of a joint communique at the end of the visit. The development marked a departure as the tradition of issuing joint communiqués at the end of visits of Nepali heads of state or government to India has usually been followed, at least since 1990.

The Madhes groups led by (SLMM) Samyukta Loktantrik Madhesi Morcha are still not agreed to the process proposed by the Oli Government for further dialogue & inclusion.

Even among these challenges Oli's visit to India cleared the air to some extent between two nations & further strengthening of ties depend upon the Nepal's approach to include the demand of Tarai people & India's relook on the relation amid china's involvement & Madhesi issue.

Saudi Arabia and Russia plan to suspend oil output to counterfeit the dramatic price fall

- Top global producers Saudi Arabia and Russia agreed Tuesday to freeze oil output in a bid to shore up prices after a 70% drop due to chronic oversupply.
- Saudi Oil Minister however said that, the move is conditional on other major producers joining in and it is designed to stabilize the market following the dramatic price fall since mid-2014.

Reasons for slump in oil prices?

- The oil prices was around \$120 per barrel in May 2014, currently it has fallen below \$30 per barrel. This slump has been caused due to number of factors.

Supply side factors

- Due to shale gas revolution US domestic production has increased significantly in last 2 years, Due to this there is over supply of oil in the market which has decreased oil prices drastically.
- Canadian and Iraqi oil production and exports are rising year after year. Even the Russians, with all their economic problems, manage to keep pumping. Oil production in Libya also reached the pre-crisis level.

- Even though the prices were falling unlike earlier period (OPEC) Organisation of the Petroleum Exporting Countries did not decrease the production to due to geo-political reasons. Those geo-political reasons we will explain later in the article.
- The war in Syria and Iraq has also seen ISIS, or Islamic State, capturing oil wells. It is estimated it is making about \$ 3 m. a day through black market sales - and undercutting market prices by selling at a significant discount - around \$ 30-60 a barrel.

Demand side factors

- On the demand side, the economies of Europe and developing countries are growing at laggard pace and vehicles are becoming more energy-efficient. So demand for fuel is lagging a bit.
- The slowdown in China which is currently the second largest economy in the world is also impacting oil prices. Since China is one of the largest oil importer and slowdown in economy has led to fall in demand for oil which has impacted price.

Geopolitical factors

- Saudi Arabia, the world's largest oil exporter and OPEC's most influential member, could support global oil prices by cutting back its own production, but there is little sign it wants to do this. This is due to number of reasons
- To destroy the Nascent Shale gas Industry of USA, since Saudi Arabia with its huge foreign reserve and large market share could sustain itself for sometime even if oil prices is as low as \$ 25 but for shale gas producers in USA it would be difficult to produce if the oil price stays so low for long .
- The Saudis and their Gulf allies have decided not to sacrifice their own market share to restore the price. They could curb production sharply, but the main benefits would go to countries they detest such as Iran and Russia. Saudi Arabia can tolerate lower oil prices quite easily. It has \$ 900 billion in reserves. Its own oil costs very little (around \$ 5-6 per barrel) to get out of the ground.

Implications of This deal for India

- If this deal comes into practice it would mean that oil production in Saudi Arabia and Russia would decrease and since they both are one of the largest producer of oil, it would definitely lead to scarcity of oil in the market, which would push the prices.
- India is one of the biggest importers of crude oil; however it is also one of the major exporter of refined oil. Thus rise in oil prices due to this deal could have both positive and negative effects on India.

(a) Negative effects

- It could increase India's trade deficit as it could increase our oil bill. Which could worsen India's Current account deficit.
- Secondly it could increase inflation in India; since oil is one of the most widely used input in all the major industries and increase in oil prices would increase in cost of production in Industries which would ultimately effect supply side of inflation. Also oil is also used in Agriculture especially to run tube wells, tractors and also to run vehicles to transport agriculture goods from farm to market. Thus increase in oil prices would also effect Agriculture inflation.
- Thirdly it could worsen India's Fiscal deficit since slump in oil prices has significantly reduced subsidy burden on India and also low oil prices has allowed Government to increase excise tax on oil goods both of which has helped to reduce India's fiscal deficit .

(b) Positive effects

- Since refined oil exports account for large portion of India's exports, rise in oil prices would increase India's exports which have continuously fallen for last 17 months. It could also boost new investment in the field of oil exploration.
- Due to slump in oil prices many OPEC countries are facing stagnant growth from last few years. Since these countries have large amount of foreign reserves they are a big FII and FDI investors in India. Due to slow growth in these countries investment from these countries to India has slowed down. These countries are also big market for Indian goods, slowdown has also effected there imports from India which has adversely effected Indian industries. All this could change if oil prices would increase since it would revive these ailing economies which could increase investment flow to India and could also boost demand for Indian goods in these countries.

China sends missiles to South China Sea

1. Recent flashpoints

- a. In April 2015, satellite images showed China building an airstrip on reclaimed land in the Spratlys.
- b. In October 2015, the US sailed a guided-missile destroyer within 12-nautical miles of the artificial islands - the first in a series of actions planned to assert freedom of

navigation in the region. China warned that the US should “not act blindly or make trouble out of nothing”.

- c. China sends missiles to SCS (South China Sea)

2. Rival countries have wrangled over territory in the South China Sea for centuries, but tension has steadily increased in recent years.

- a. China has backed its expansive claims with island-building and naval patrols, while the US says it opposes restrictions on freedom of navigation and unlawful sovereignty claims-by all sides, but seen by many as aimed at China.
- b. The frictions have sparked concern that the area is becoming a flashpoint with global consequences.

3. What is the argument about?

- a. It is a dispute over territory and sovereignty over ocean areas, and the Paracels and the Spratlys -two island chains claimed in whole or in part by a number of countries.
- b. Alongside the fully fledged islands, there are dozens of rocky outcrops, atolls, sandbanks and reefs,such as the Scarborough Shoal.

4. Why are they worth arguing over?

- a. Although largely uninhabited, the Paracels and the Spratlys may have reserves of natural resources around them. There has been little detailed exploration of the area, so estimates are largely extrapolated from the mineral wealth of neighbouring areas.
- b. The sea is also a major shipping route and home to fishing grounds that supply the livelihoods of people across the region.

5. Who claims what?

- a. China claims by far the largest portion of territory - an area defined by the “nine-dash line” which stretches hundreds of miles south and east from its most southerly province of Hainan.
- b. Beijing says, its right to the area goes back centuries to when the Paracel and Spratly island chains were regarded as integral parts of the Chinese nation and in 1947 it issued a map detailing its claims. It showed the two island groups falling entirely within its territory. Those claims are mirrored by Taiwan.
- c. Vietnam hotly disputes China's historical account, saying China had never claimed sovereignty over the islands before the 1940s.

Vietnam says, it has actively ruled over both the Paracels and the Spratlys since the 17th Century - and has the documents to prove it.

- d. The other major claimant in the area is the Philippines, which invokes its geographical proximity to the Spratly Islands as the main basis of its claim for part of the grouping.
- e. Both the Philippines and China lay claim to the Scarborough Shoal (known as Huangyan Island in China) - a little more than 100 miles (160km) from the Philippines and 500 miles from China.
- f. Malaysia and Brunei also lay claim to territory in the South China Sea that they say falls within their economic exclusion zones, as defined by United Nations Convention on the Laws of the Sea : (UNCLOS) the United Nations Convention on the Law of the Sea.
- g. Brunei does not claim any of the disputed islands, but Malaysia claims a small number of islands in the Spratlys.

6. Attempts for resolution

- a. Attempts to resolve the issue have not be comprehensive. Even there is confusion over what should be the framework within which countries should work.
- b. China wants to solve the issue through bilateral talks whereas other countries want it to be taken up at multilateral engagements like ASEAN.
- c. But the countries have signed an understanding regarding the behavior of parties in SCS.

7. Implications of recent steps taken by China

- a. The recent steps taken by China will increase the tensions in the area. It will give credence to US pivot to Asia. Any kind of alignment with major powers in the Asian region will not be good in long term.

8. India and South China Sea

- a. India has significant stakes in ensuring the freedom of navigation in SCS as significant amount of India's trade goes through that region.
- b. Also India has strategic relations with Vietnam, who also claims sovereignty over some of the islands.
- c. India also has economic interests in the region because of her energy security requirements. In past it has taken hydrocarbon exploration operations but has to abandon it because of sensitivities.

- d. It may also act as India's counter to Chinese increase presence in Indian Ocean

What is at stake is the peace? prosperity of the region which is combined. Therefore all the countries must understand that all their actions should be aimed in that direction. But this does not seem to be the case as long as all the parties come on a table and talk.

North-Korea Crisis

1. **Context** - the Nuclear test, satellite launch using ballistic missile technology.

- a. The North Korean government has claimed that it successfully tested a "hydrogen bomb" on January 5. It was the fourth underground nuclear test conducted by North Korea and the first since 2013.

2. **Arguments sighted by North Korea -**

- a. The North Korean government has been feeling increasingly threatened with the United States and its allies in the region adopting an ever more militarily bellicose attitude. The U.S. and South Korea concluded massive war games in September 2015 on the Korean peninsula to intimidate North Korea. Some of the joint military drills were held just 20 km from the border with North Korea. The 2015 joint U.S.-South Korean military exercises were known as OPLAN 5015 and were part of the U.S.' new war strategy to counter alleged North Korean provocations.
- b. The U.S. continues to conduct subcritical nuclear tests and to test nuclear-capable missiles. It has not signed the Comprehensive Test Ban Treaty (CTBT) and is spending \$1 trillion on modernising its nuclear arsenal. The other countries that also have nuclear weapons are also busy upgrading their arsenals-among them are India, Pakistan and Israel.

3. **Implications:**

- a. Nuclear test by North Korea are going to have serious implications for the peace and security of the region.
- b. Test puts nail to any options of rapprochement in the Korean peninsula.
- c. It will further increase the militarization of the area.
- d. US in recently passed the 2015 National Defence Authorisation Act, which will provide for the setting up of a joint missile defence system, comprising the U.S., South Korea and Japan, in North-East Asia.

- e. Increased US presence in the region may antagonize China, with whom tensions are rising because of South China Sea issue.

4. **Reactions by -**

- a. **South Korea :**

- i. After the latest nuclear test by the North, the South has decided to resume its propaganda barrage. North Korea has described the resumption of the propaganda broadcasts as "an act of war".

- b. **China :**

- i. China has strongly criticised the latest nuclear test. The Chinese Foreign Ministry spokesperson said that. China "will firmly push for the denuclearisation of the Korean peninsula"-which also happens to be the U.S.' stated aim.
- ii. The Chinese leadership does not have any exceptionally warm relationship with North Korea, but it has reportedly refused to join the economic blockade of the country and is North Korea's largest trading partner. But Kim Jong-un has still not received an official invitation to visit China, which has signalled on many occasions that it remains opposed to North Korea's ambitious missile and nuclear programmes.

- c. **USA :**

- i. After the January nuclear test, the U.S. has announced the deployment of even more strategic assets on the Korean peninsula. An American B-52 bomber accompanied by fighter jets flew at a very low altitude near the DeMilitarised Zone (DMZ) that divides North and South Korea. Top North Korean officials have warned that the deployment of nuclear capable missiles and planes have pushed the Korean peninsula "toward the brink of war".
- ii. USA has also imposed unilateral sanctions on North Korea. The new sanctions regime will require the President to mandatorily investigate and designate persons and entities for violations. The law will also give more tools to the administration to enforce secondary sanctions - which are restrictions on a 3rd country from doing business with the North.

- iii. These also covered North's export and export of metals and coal.
- iv. Since most of North Korea's trade is with China, which is not on the same page regarding sanctions, the outcome of these sanctions is doubtful.

5. Response by United Nations

The United Nations Security Council voted to impose a broad array of sanctions against North Korea, which are considered to be the most stringent in the history of UN.

The sanctions will:

- a. Require all North Korean planes and ships carrying cargo to be inspected. Previously, nations only inspected planes and ships when they had "reasonable grounds" which enabled North Korea to hide tools and parts for missiles and the nuclear program in inconspicuous packages, Power said. "This is hugely significant," she said.
- b. Ban Pyongyang from exporting most of the country's natural resources. Coal alone accounted for about \$1 billion in annual income, she said.
- c. Ask U.N. member states to ban North Korea from opening banks, and to close any banks believed to be associated with North Korea's nuclear and missile programs.
- d. Direct member states to expel North Korean diplomats and foreign nationals engaged in illicit activities.
- e. Prohibit nations from providing training to North Korean nationals in fields that could advance the nation's missile and nuclear programs, such as aerospace engineering and advanced computer simulation.
- f. Ban member states from allowing North Korea to charter foreign vessels or aircraft, and ban all nations from operating any vessels that use North Korean flags.
- g. Prohibit the supply of aviation fuel including rocket fuel and the sale of small arms to North Korea.

6. Timeline of attempts to denuclearise North-Korea / overview -

- a. Way back in the 1990s, North Korea had agreed to halt its nuclear programme in exchange for guarantees that the economic sanctions it was subjected to would be lifted and a peace treaty would be signed.
- b. In 1994, it signed "a denuclearisation" agreement with the U.S. For many years, as

relations with the South improved, North Korea halted its nuclear programme.

- c. President Bill Clinton had sent his Secretary of State Madeleine Albright to Pyongyang towards the end of his presidency in an attempt to secure a diplomatic breakthrough in relations. North Korea signalled at the time that it was willing to give up its nuclear option if it was allowed to honourably enter the international mainstream.
- d. In 2005, North Korea reached an agreement with the U.S., China, South Korea and Russia to suspend its nuclear programme in exchange for diplomatic concessions and energy assistance.
- e. But it walked out of the deal in 2008 after the West refused to give any meaningful concessions. Now, many disarmament experts say that North Korea has reached a point of "no return" as it has considerably expanded its arsenal of sophisticated missiles and nuclear weapons.
- f. The downward spiral in relations with the U.S. started after President George W. Bush included North Korea in the so-called "axis of evil" and earmarked the country for regime change.
- g. In 2003, North Korea walked out of the Nuclear Non-Proliferation Treaty (NPT). Relations with the South deteriorated after the right-wing government that was elected in the middle of the last decade gave up the "sunshine policy" that was introduced by Kim Dae-jung in the late 1990s. The sunshine policy encouraged the much more prosperous south to invest in and trade with the North and at the same time step up diplomatic contacts and family reunions.
- h. North Korea conducted its 1st nuclear test in October 2006, after its relations soured with the U.S. and South Korea.
- i. The 2nd test was conducted in May 2009. Kim Jong-il was in power at the time of both the tests.
- j. After his son, Kim Jong-un, took over, North Korea conducted its 3rd nuclear test in February 2013.
- k. Many senior U.S. officials have been urging their government to engage North Korea through serious diplomacy. Stephen Bosworth, who was President Obama's 1st special envoy to North Korea, said recently that there was no point in continuing with the policy of "strategic patience" and that there should be meaningful talks instead.

- I. According to many observers, North Korea will keep on testing until it gets the U.S. back at the negotiating table and a peace treaty formally ending the Korean war is signed. Technically, the 2 countries are still at war. North Korea has repeatedly stated that a formal peace treaty will give it the security it needs. Regime change in the North is also anathema to China as such a development will bring the U.S. army, along with a potentially hostile neighbour, to its doorstep.

WTO rules in favour of USA in solar power case

Introduction

Recently WTO released its ruling against India's National Solar Mission, deciding that India's efforts to boost local production of solar cells violated WTO rules.

What is the issue all about?

- India in 2010 launched its National solar programme the program aimed at reducing the cost of solar energy and achieve 100000 MW of solar power capacity by 2022. . This solar programme was launched because coal was unable to meet India's power sector demands and also focusing on solar power would meet India's commitment towards climatic change.
- To incentivize 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.

US stand in this case?

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, it said, India has violated its national treatment obligation by unfavorably 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.

What is India's stand in this case?

- India argued that the program helps the country to meet its climate commitments under the United Nations Framework Convention on Climate Change (UNFCCC), the WTO rejected that argument.
- India principally relied on the 'government procurement' justification, which permits countries to deviate 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".
- India also argued that nearly half of US States have renewable energy programs that, like India's solar program, include "buy-local" rules that create local, green jobs and bring new solar entrepreneurs to the economy.

WTO panel stands in this case

- WTO panel decided that India has violated In its ruling, the WTO agreed that India's buy-local rules "accord less favorable treatment" to imported solar components, even while acknowledging that imported cells and modules currently have a dominant share of the market for solar cells and modules in India.
- In so far as the government procurement derogation was concerned, the panel found that 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. The domestic content requirement was therefore not an instance of government procurement
- Besides, the panel also found that since India failed to point out any specific obligation having direct effect in India or forming part of its domestic legal system, which obligated India to impose the particular domestic content requirement, the general exception was not available to the Indian government in the instant case.

Is there basis for domestic content requirement?

- 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.
- In fact, by mandatorily requiring solar power producers to buy locally, the government is imposing an additional cost, usually passed on to the ultimate consumer, for the production of clean energy.

Impact of this decision

- solar power producers in India would get freedom to choose energy-generation equipment on the basis price and quality, irrespective of whether they are manufactured locally or not, Since most of the producers in USA and China produce these equipments cheaply it would reduce the price of solar electricity in India which benefit the consumers of solar power in India.
- However, this may affect the profitability and future of nascent solar equipment making industry in India since power producers in India would hardly buy from them after this decision as there equipments are of inferior quality and also they are costly.
- It would also give a boost to investment in solar power industry as with reduction in cost the profitability of solar power producers would increase.

Options for India

- India has a option to appeal to the appellate body. Simultaneously, India may be exploring the option of filing a counter complaint against the U.S., with several states in the U.S. such as Michigan, Texas and California having also reportedly been accused of employing mandatory local content requirements in the renewable energies sector.

Way foreword

- India must resist the temptation of adopting protectionist measures such as domestic content requirements which are inconsistent with its international obligations. Domestic content measures, despite their immediate political gains, have a tendency to skew competition. Manufacturers must remain free to select inputs based solely on quality and price, irrespective of the origin.
- It is entirely possible to give preferential treatment to clean energies (in the form of tax rebates for solar power producers and so on) without requiring mandatory local content.

Why India needs a counter terrorism institution?

India has been living in a hostile neighborhood, especially on its western flank. Both state and non state actors are involved in various kinds of subversive and terrorists acts. The numbers of terror attack attempts have been increasing all over India. Therefore there is a need to overhaul the counter terror apparatus in India. The present institutional set up in India to deal with anti terror operations is:

1. Intelligence:

IB, RAW and MAC are involved in gathering intelligence. Multi Agency Centers (MAC) collate intelligence information from different sources and disseminate them.

2. Counter Terror operations:

Counter terror operations are carried out by NSG and local police. The local police which act at the ground and is many a times first respondent. Other agencies like Army and special elite forces are also involved as and when required in aid of the civilian force.

3. Investigation:

Investigation and prosecution is done by NIA which draws its power from Unlawful Activities Prevention Act.

4. Center State relations and counter terrorism:

From the legal angle law and order, police are state subjects. But article 355 enjoins upon the Union duty to protect the state and entry 2-A of Union List gives power to the Union to deploy its forces in aid of civil power of the state. These clear the issues regarding federal arrangements and issues thereof.

What was the proposed set up after 26/11 attacks?

After 26/11 attacks there was a clamor for strengthening of counter terror structures. In the wake up of 26/11 attacks National Counterterrorism Center (NCTC) and The National Intelligence Grid (NATGRID) were proposed. Along with this CCTNS (Crimes and Criminals Tracking and Networking System) to connect all the police stations was proposed.

NATGRID was envisaged as national intelligence grid which will collect information from various agencies covering human intelligence, financial intelligence, cyber intelligence, physical movement details etc. Then after analyzing the information that would be made available to 11 intelligence agencies like CBI, NIA, CDBT etc. for operation. NATGRID was supposed to subsume MAC.

NCTC was supposed to be federal anti terror agency involved in covering all aspects of counter terror operations starting from intelligence gathering, planning and executing operations. This was supposed to subsume NATGRID within it.

For further reforms or to analyse the need of new institutions the present issues afflicting the institutions must be studied.

What are the issues in present set up?

- a. Co-ordination: There is absence of co-ordinations among the different agencies (intelligence, counter-terror operations) as was evident in Pathankot attack.
- b. Training and Capacities: Even elite forces like the NSG suffer from chronic problems of acquisition and training. The state police does not undertake minimum required firing rounds.
- c. Human resource: All the agencies face the shortage of staff. The National Investigation Agency (NIA) has only 579 of the 816 personnel sanctioned, compared to the FBI's 34,019 staff, over 12,000 of whom are actual investigators.

- d. Financial resources and technical resources crunch is also faced. Local police don't have enough funds for fuel to undertake local visits.
- e. Autonomy, accountability, professional leadership and institutional ethos all are missing in many cases. No heads ever roll in case of failure of intelligence or operations.
- f. Policing and State Delhi Police, for its part, has neither specialist equipment nor protocols for dealing with attacks on schools, malls or theatres - all, as recent experience around the world shows, potential targets.
- g. The police forces are not ready to tackle special issues facing the states, like infiltration in border states, inter-community conflicts in sensitive states.
- h. Political will to carry out reforms is missing. Even the police reforms proposed by Supreme Court in Prakash Singh case are not implemented by states.
- i. In border states the security forces and police are found in collusion with drug peddlers and smugglers. Terrorists use this to sneak into country.
- j. Border infrastructure to stop infiltration is missing.

Do we need new counter terrorism institution?

A new institution subsuming all the staggered institutions will increase the coordination and smoothen the process of operation. But it will not be sufficient. Capacities of the state police forces should be increased. If India wants to stem the increasing tide of terrorist actions, holistic changes solving the present issues in the setup should be done. Just creating an agency at the national level will not suffice.

Union Cabinet approves \$150 million Credit for Chabahar Port Development

The Union Cabinet has given its approval to the proposal of the Ministry of Shipping for provision and operationalisation of credit of \$ 150 million from EXIM Bank for development of Chabahar Port in Iran. The Cabinet has also authorised the Shipping Ministry to form a company in Iran for implementing the Chabahar Port Development Project and related activities.

The strategic port, which is located off Iran's south eastern coast will provide India a sea-land access route to Afghanistan bypassing Pakistan. India is negotiating this project to facilitate the growing trade and investment with Iran and other countries in the region, notably Afghanistan and also to provide opportunities to Indian companies to penetrate and enhance their footprint in the region,

Chabahar Port lies outside the Persian Gulf in Iran and will help in expanding maritime commerce in the region.



Importance of chabahar port for India

- The port of Chabahar is located in the south of Sistan and Baluchistan Province on the Makran coast located 300 km. east from the Strait of Hormuz and is the only Iranian port with direct access to the Indian Ocean as well as the Oman Sea and Persian Gulf.
- Chabahar port is strategically situated between Pakistan and the Persian Gulf, making it especially valuable for checking any Chinese attempt to use Gwadar to deepen naval deployments in Middle Eastern waters. Also the facility would help India to monitor any Pakistani and Chinese activities especially Pakistani Navy in the Indian Ocean Region as well as Gulf against India's interest.
- It will emerge as a significant hub for transit and trade routes for the South and Central Asian states especially for Iran, India and Afghanistan and beyond which can cut down transit by a 3rd accruing significant time and cost savings.
- The port is central to India's efforts to circumvent Pakistan and open up a route to landlocked Afghanistan where it has developed close security ties and economic interests.
- India can connect with Europe via Chabahar port which will provide access through International North-South Transport Corridor. The Chabahar deep-sea port and the International North-South Transport Corridor (INSTC) running northward through Iran and Afghanistan will provide New Delhi vital access to Central Asian, Russian, and ultimately European markets, enabling India to effectively compete with China.
- Chabahar also opens up the possibility of importing gas from Iran via Mundra Port along with enhanced trade and oil import opportunities.

4. ENVIRONMENT + GEOGRAPHY

Seismic Microzonation Reports For Delhi & Kolkata

Ministry of Science & Technology and Earth Sciences released Seismic microzonation reports for Delhi and Kolkata.

What is Seismic Microzonation :

Seismic microzonation is a process of subdividing a large potential seismic region by identifying related geological, seismological, hydrological and geotechnical site characteristics.

How Seismic Microzonation would help?

In most of the natural hazards, prediction of earth quake is almost impossible with current technology, but the resulting damage due to them can be minimized by taking proper measures. Microzonation is one such measure where the emphasis on the impact of earthquake on the habitat is given.

The Endeavor would help to minimize the impact of earthquakes by

- Proper assessment of Seismic Hazard
- Implementation of safe building construction codes,
- Adopting appropriate land-use planning

Factors studied under microzonation process:

Under it various investigations viz, ambient noise survey, Multi-Channel Analysis of Surface Waves (MASW) survey, in-situ geotechnical testing, in-situ seismic measurements etc. were carried out and after analysis of data sets different maps viz., Peak Ground Acceleration (PGA), spectral accelerations for different periods, liquefaction potential, predominant frequency, amplification factor, average shear wave velocity at 30 meters depth, geology & geomorphology and projected Hazard Scenarios at GIS platform etc. have now been prepared .

Report on Delhi & Kolkata:

Delhi is located in Seismic zone IV of the macro seismic zoning map of the country. The Earthquake Risk Evaluation Center (under the Indian Meteorological Department IMD), now merged with National Centre for Seismology, Ministry of Earth Sciences, undertook the microzonation of the NCT Delhi and generated an integrated seismic hazard map of Delhi.

The city of Kolkata, another most urbanized and densely populated centre having unplanned urbanization defying building codes is increasingly vulnerable to the

earthquake. It is placed at the border of Seismic Zone III and IV, necessitating systematic assessment of seismic hazard, vulnerability and risk. The Seismic Microzonation project for the city of Kolkata was conceived by Indian Institute of Technology Kharagpur in consortium with a few other organizations in Kolkata under the aegis of the Geosciences Division, Ministry of Earth Sciences, Government of India with full financial support from the Ministry.

Beneficiaries of these microzonation maps would include

- Disaster Mitigation & Management Authorities
- Urban Development Authorities
- Planning, Design & Construction Agencies
- Risk Assessment to existing life & Property
- Defense Installations
- Heavy Industry
- Public Utilities & Services

Current Seismic Zoning:

Seismic zoning map for entire India was prepared and published by the Bureau of Indian Standards (BIS), classifying the entire country into 4 major groups.

ZONE 5 Area determines by pro seismically of certain major fault systems. Zone 5 covers the areas with the



highest risks zone that suffers due to earthquakes of intensity MSK IX or greater. It is referred to as the Very High Damage Risk Zone. The IS code assigns zone factor of 0.36 (maximum horizontal acceleration that can be experienced by a structure in this zone is 10% of gravitational acceleration) for Zone 5. Structural designers use this factor for earthquake resistant design of structures in Zone 5. The zone factor of 0.36 is indicative of effective (zero period) level earthquake in this zone.

The region of Kashmir, the western and central Himalayas, North and Middle Bihar, the North-East Indian region and the Rann of Kutch fall in this zone.

ZONE 4 This zone is called the High Damage Risk Zone and covers areas liable to MSK VIII. The IS code assigns zone factor of 0.24 for Zone 4.

The Indo-Gangetic basin and the capital of the country (Delhi), Jammu and Kashmir fall in Zone 4. In Maharashtra, the Patan area (Koyananager), in Bihar the northern part of the state like- Raksaul and near the border of India and Nepal, is also in zone no-4.

ZONE 3 Moderate damage corresponding to intensity VII of MM scale. The IS code assigns zone factor of 0.16 for Zone 3. The Andaman and Nicobar Islands, parts of Kashmir, Western Himalayas fall under this zone.

ZONE 2 Area with low damage risk zone & earthquakes corresponding to intensities V to VI of MM scale (MM - Modified Mercalli Intensity scale). The IS code assigns zone factor of 0.10 for Zone 2.

6th Doppler radar for weather forecasting

India Meteorological Department (IMD) will commission the 6th Doppler radar in cyclone prone eastern coast of India in Gopalpur (Odisha) which had faced the severe cyclonic storm Phailin in October 2013.

The others are located in Chennai, Kolkata, Machilipatnam, Visakhapatnam and Paradip.

About Doppler radar:

Doppler radar is an observational tool for monitoring and predicting severe weather events such as thunder storms, hailstorms, cyclones and tornados within a radius of 300 km.

It not only gives information about precipitation but also about wind velocity.

Working Principal of Doppler radar:

It uses Doppler Effect to measure velocity of objects at a distance. It sends a microwave signal off a desired

target and analyzing how the object's motion has altered the frequency of the returned signal. This variation gives direct and highly accurate measurements of the radial component of a target's velocity relative to the radar.

Uses of Doppler radar:

Doppler radars are used in aviation, sounding satellites, meteorology, radar guns, radiology and healthcare (fall detection and risk assessment, nursing or clinic purpose), and bistatic radar (surface-to-air missile).

Why Eastern coast is more prone to Cyclones than Western Coast of India?

The reasons behind it include

- Bay of Bengal (BoB) water is warmer than Arabian sea.
- Fresh water from rivers fall into BoB, making the water as a light thin layer, more prone to evaporation.
- There is a large-scale downward wind movement over the Arabian Sea during most of the year and convection has little chance to grow and intensify into cyclones, however, The westward wind flow direction in areas north of a cyclone in the Bay contributes to storm surges an abrupt rise in the sea level, mimicking conditions of a mini tsunami and significant water movement towards land.
- The areas along the coasts of West Bengal, Orissa and Andhra Pradesh are also flat which makes them especially vulnerable to landfall & inundation from storm surges and damage from the cyclone's winds while due to significant height of Western Ghats landfall is a rare phenomena on western coast.

Tropical Cyclone in India:

There are 2 definite seasons of tropical cyclones in the North Indian Ocean. One is from May to June and the other from mid-September to mid-December.

May, June, October and November are known for severe storms. The entire east coast from Orissa to Tamil Nadu is vulnerable to cyclones with varying frequency and intensity. Along the west coast, the Gujarat and Maharashtra coasts are more vulnerable as compared to the southern part. Most of the cyclones have their origin between 10°N and 15°N during the monsoon season.

Nilam (2012), Helen, Phailin & Lehar (2013), Hudhud (2014) struck the eastern coast. While onil (2004), Yemyin (2007). Phyan (2009) hit the western coast.

5. SCIENCE & TECHNOLOGY

Photonic Propulsion

NASA is currently working on the technology which can propel the spacecraft to Mars in Just 3 days which with current technology (Rocket Propelled System) takes near 5 months.

Principal of Photonic Propulsion:

Photonic propulsion works by firing lasers at a reflective material like a solar sail. Photonic propulsion system relies on the momentum of photons - particles of light - to move forward. But instead of photons from the Sun's rays, Spacecraft would be given a push by giant Earth-based lasers. Despite not having any mass, particles of light have both energy and momentum, and when they reflect off an object, that momentum is transferred into a little push. With a large, reflective sail, it's possible to generate enough momentum to gradually accelerate a spacecraft.

How it is better than existing Technologies & alternative candidates?

Currently in Rocket propelled spacecrafts, the thrust comes from burning a chemical, such as rocket fuel. Not only does this fuel source weigh down spacecraft, it's also an incredibly inefficient system when compared to electromagnetic acceleration, which is the use of light or other electromagnetic radiation to accelerate objects.

Electromagnetic acceleration is only limited by the speed of light while chemical systems are limited to

the energy of chemical processes. But while electromagnetic acceleration in the lab is relatively straightforward, it requires a lot of complicated and expensive equipment - such as the ring of superconducting magnets that make up the Large Hadron Collider - and hasn't been easy to scale up to the size required for space travel.

With current technology we are struggling to even accelerate spacecraft to beyond 3% of the speed of light. Photonic propulsion could propel a spacecraft to an unheard-of 30% the speed of light - and it would also use a similar amount of chemical energy (50 to 100 gigawatts) to do so and regardless of the scale, it would be a more viable candidate & is capable of sending a 100-kg robotic craft to Mars in just 3 days.

Potentials & Limitations:

Real benefit of photonic propulsion comes over longer distances, where the spacecraft has more time to speed up, and could eventually take us outside our Solar System and to neighboring stars, however, The system isn't designed to send humans across interstellar distances -1st of all, robots are far better equipped for that mission, and secondly, human would be far too heavy.

Exploring the nearest stars and exoplanets would be a profound voyage for humanity, one whose non-scientific implications would be enormous. It is time to begin this inevitable journey beyond our home.

SNIPPETS

Results of Swachh-Survekshan 2016 announced, Mysuru declared cleanest city in India

- The government has released list of cleanest cities based on the 'Swachh Sarvekshan campaign' survey based on sanitation conditions across Indian cities.
- In this, Karnataka's Mysuru has topped the list of India's cleanest cities for the second year in a row while Dhanbad (Jharkhand) features on the list as among the dirtiest cities of India.
- The result of Swachh Survekshan (cleanliness survey) has been announced by Union Minister of Urban Development. The latest rankings follow a Mysuru, Chandigarh, Tiruchirappalli, New Delhi & Visakhapatnam similar survey conducted in 2014 which saw top the list of five cleanest cities of India..
- Dhanbad, Itanagar, Asansol, Patna, Meerut, Raipur, Ghaziabad, Jamshedpur, Kalyan Dombivilli and Itanagar are the dirtiest cities of India.
- The cities that have improved their ranks when compared with the 2014 survey results are Visakhapatnam (which has climbed from 44 to 5), Surat (from 12 to 6), Rajkot (from 32 to 7), and Gangtok (from 16 to 8).
- The survey was conducted to promote a spirit of competition among the cities. It was to assess the measures taken by the cities to improve sanitation, present service levels including infrastructure developed, deployment of men and machines and efforts to bring about behavioural changes.
- 10 cleanest cities of India across the country are: Mysuru, Chandigarh, Tiruchirappalli, New Delhi Municipal Council (NCT Delhi), Vishakhapatnam, Surat, Rajkot, Gangtok, Pimpri-Chinchwad and Greater Mumbai.
- Swachh Survekshan Survey 2016
- It is a survey conducted by the Quality Council of India to assess the level of cleanliness in various cities across the country. It has been conducted by deploying 25 teams which visited 42 locations in each city.
- It is a part of the second cleanliness survey 'Swachh Sarvekshan' which began last year.
- It is released by the ministry of Urban development.

Wholesale prices decline for 15th consecutive month

- As per the Wholesale Price Index (WPI) data released by the Ministry of Commerce & Industry, general price level during January 2016 is 0.9 % lower than a year ago. This marks the 15th consecutive month of year-on-year fall in wholesale prices. Also, this is the most prolonged deflationary phase the country has witnessed in at least the last 3 decades.
- India's wholesale prices continued to fall in January 2016 - with the pace of price decline touching 0.9% from 0.73% in December - marking the 15th successive month of contraction in the wholesale price index for inflation.
- The surge in the pace of price decline has been driven by the global meltdown in commodity prices impacting energy and manufactured product costs. While food articles continued to see a rise in prices, the pace slowed down from 8.17% in December 2015 to 6.02% in January. The divergence in consumer price inflation and wholesale price inflation is also due to prices for pulses shooting up in January.
- Within primary articles, inflation accelerated in non-food articles from 7.7% in December 2015 to 8.24% in January 2016. The fuel and power segment continued to see a pullback in prices at the wholesale level, shrinking by 9.21% in January compared to a negative growth of 9.15% in December.
- This can be attributed to the persistence of deflationary conditions indicating a continued moderation in demand. It also points to a strain in industrial activity.
- Seeing this, the government should not shy away from recalibrating the fiscal deficit target in order to push public investments with a view to add productive capacity to the economy.

Wholesale Price Index

- The Wholesale Price Index or WPI is the price of a representative basket of wholesale goods. It is released monthly.
- The Wholesale Price Index focuses on the price of goods traded between corporations, rather than goods bought by consumers, which is measured by the Consumer Price Index (CPI). The purpose of the WPI is to monitor price movements that reflect supply and demand in industry,

manufacturing and construction. This helps in analyzing both macroeconomic and microeconomic conditions.

Government launches Portal to collect Non-Tax Receipts

- The Ministry of Finance has launched a portal to electronically collect over Rs.2 trillion annually in non-tax receipts from sources such as dividends by state-owned firms, the Reserve Bank of India and spectrum fee. The Non Tax Receipt Portal (NTRP) has been developed by the Controller General of Accounts, Department of Expenditure, Ministry of Finance under the Digital India campaign.

Advantages:

- It will reduce a lot of manual work and provide a one-stop platform to citizens or corporates or other users to make online payment of non-tax receipts to the Union Government.
- The online electronic payment will help common users/citizens from the hassle of visiting bank premises for issue of drafts, and later to government offices to deposit the instrument for availing services.
- It will also help avoidable delays and remittance of these instruments into government account as well as eliminate undesirable practices in the delayed deposit of these instruments into bank accounts.
- It will provide a completely secured IT environment.

RBI extends currency swap arrangement with SAARC nations

- RBI has recently extended the \$2 billion currency swap arrangement to SAARC nations till mid-November 2017.

What is currency swap agreement?

- It is an agreement between 2 parties to swap their currencies without involving 3 party (thus avoiding a risk of changes in third party currency). It is an arrangement, between 2 friendly countries (in this case), which have regular, substantial or increasing trade, to basically involve in trading in their own local currencies, where both pay for import and export trade, at the pre-determined rates of exchange, without bringing in 3rd country currency like the US Dollar.

How currency swap agreement works?

Example 1:

- Suppose an established Indian company 'A' wants to buy oil from company 'X'. but, company 'X' is

accepting its payments only in Yen. The normal procedure would be to convert INR to USD and then to convert USD to Yen. This involves risk of change in value of currency in 2 stages.

- Now if there is company 'B' which wants to import from India with Yen. Then company 'A' and 'B' can exchange their currencies at a fixed exchange rate. This is currency swap agreement. This agreement can also be done by 2 countries for a predetermined amount and passed on to businesses. In short, It reduces the risk & charges involved in multiple currency exchanges.

Example 2:

- In this case Company 'E' in India has INR and doing business in another country using YEN expects demand for Yen to grow faster than INR in future. It can immediately exchange its INR to Yen and stack them there. Thus currency swap can be used as a tool to hedge exposure to exchange rate risk.

About SAARC swap agreement

- The SAARC Swap Arrangement was offered by the RBI to SAARC nations on November 15, 2012. The facility is available to all SAARC member countries - Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, Pakistan and Sri Lanka.
- Under the arrangement, RBI is to offer swap arrangement up to an overall amount of \$2 billion both in foreign currency and Indian rupee. The swap amount available to various member central banks has been arrived at broadly based on 2 months import cover subject to a floor of \$ 100 million and a maximum of \$ 400 million per country.
- The SAARC swap agreement promotes financial stability and economic cooperation within the SAARC region. The swap framework provides a backstop line of funding for the SAARC member countries to meet any balance of payments and liquidity crises till longer term arrangements are made if there is need for short-term liquidity due to stressed market conditions.

National Rurban Mission (NRM)

- Prime Minister launched the National Rurban Mission from Kurubhat, in Rajnandgaon district of Chhattisgarh.
- Rurban Mission would enable cluster based development - with a "rural soul and urban amenities." It would complement the Smart Cities initiative by creating Smart Villages. Rurban clusters would be the centres of economic activity, which would spur growth, and improve the quality of life in nearby villages.

Major Features of the Mission:

- The Mission aims at development of Rural Growth Clusters, in all States and UTs, which would trigger overall development in the region. Under it 300 such Rurban growth clusters would be created over the next 3 years, across the country. The clusters will be geographically contiguous Gram Panchayats with a population of about 25000 to 50000 in plain and coastal areas and a population of 5000 to 15000 in desert, hilly or tribal areas.
- These clusters would be well delineated areas with planned layouts prepared following the planning norms (as laid down in the State Town and Country Planning Acts/similar Central or State statutes as may be applicable), which would be duly notified by the State/UTs.
- The States would prepare Integrated Cluster Action Plans for Rurban Clusters, which would be comprehensive plan documents detailing out the strategy for the cluster, desired outcomes for the cluster under the mission, along with the resources to be converged under various Central Sector, Centrally Sponsored and State Sector schemes, and the Critical Gap Funding (CGF) required for the cluster

Selection Criteria:

- For selection of clusters, the Ministry of Rural Development is adopting a scientific process of cluster selection which involves an objective analysis at the District, Sub District and Village level, of the demography, economy, tourism and pilgrimage significance and transportation corridor impact.
- There would be a separate approach for selection of clusters in Tribal and Non-Tribal Districts. As far as practicable, clusters of village would follow administrative convergence units of Gram Panchayats.
- These clusters would be developed by provisioning of economic activities, developing skills & local entrepreneurship and providing infrastructure amenities.

Funding of the Mission:

- The funding for Rurban Clusters will be through various schemes of the Government converged into the cluster. The SPMRM will provide an additional funding support of upto 30% of the project cost per cluster as Critical Gap Funding (CGF) as Central Share to enable development of such Rurban clusters.
- In addition to the Critical Gap Funding, proactive steps have been taken to ensure the success of the mission with adequate budget provisions for supporting the State Government towards project

development, capacity building and other institutional arrangements at the state level.

14 Components for optimal development:

- It include Skill development training linked to economic activities, Agro Processing/Agri Services/Storage and Warehousing, Digital Literacy, Sanitation, Provision of piped water supply, Solid and liquid waste management, Village streets and drains, Street lights, Fully equipped mobile health unit, Upgrading school /higher education facilities, Inter-village road connectivity, Citizen Service Centres- for electronic delivery of citizen centric services/e-gram connectivity, Public transport., LPG gas connections.

Challenges:

- Model has been taken under (PURA) Provision of Urban Amenities to Rural Areas which was not much a success thus question is raised on success of this mission.
- There is no clear guideline on how the Critical Gap Funding will be provided.
- Under mission, to ensure the participation of local people will be a difficult task amid low skill level in rural areas.
- Building Infrastructure may be delay due to issues in land acquisition.
- Coordination between District, state and center still a continuous challenge.

Establishment of Atal Innovation Mission and SETU in NITI Aayog

The Union Cabinet has approved for establishment of Atal Innovation Mission (AIM) and Self Employment and Talent Utilization (SETU) in NITI Aayog.

Establishment of AIM and AIM Directorate would result in implementation of Mission activities in a focused manner. This would be a focal point to give substantial boost to the innovation ecosystem and to catalyze the entrepreneurial spirit in the country.

Details:

- The Headquarter of the Mission will be New Delhi
- NITI Aayog will hire Mission Director and other appropriate manpower.
- The Mission would be guided by a Mission High Level Committee (MHLC) which will take all decisions relating to approval of requisite guidelines including Grand Challenge areas, prize money and implementation of various elements of AIM and SETU.

Background:

Finance Minister in his Budget Speech 2015-16 announced to establish the Atal Innovation Mission (AIM) and a mechanism to be known as SETU in NITI with an initial sum of Rs. 500 crore and Rs. 1000 crore respectively.

Committee constituted by NITI Aayog under the Chairmanship of Prof. Tarun Khanna to work out detailed contours of AIM and SETU.

It recommended for the short-term (where action can be taken relatively quickly to deliver almost immediate payoffs), medium-term (that can be addressed within a 5-7 years time frame) and long-term, which are likely to have long gestation period, but will lead to a profound transformation in the entrepreneurial fabric of the country

AIM: AIM will be an Innovation Promotion Platform involving academics, entrepreneurs, and researchers drawing upon national and international experiences to foster a culture of innovation, R&D in India. The platform will also promote a network of world-class innovation hubs and grand challenges for India.

It was observed that AIM is a Mission and SETU is an approach. Therefore, there should be one umbrella scheme titled as 'AIM' which will have 2 sub-components - i) Innovation; and ii) SETU, wherein the innovators would be supported and mentored as successful entrepreneurs

SETU is a techno-Financial, incubation and Facilitation Program to support all aspects of start-up businesses and self-employment activities, particularly in technology driven areas.

For these incubation facilities in Centers of Excellence, funding for seed capital and growth and ease of doing business etc. will be required. Currently this ecosystem consists of incubators, accelerators, angel financing networks, venture capitalists, social venture capital, private equity, lawyers, accountants, consultants etc.; all players who're almost exclusively in the private sectors with more than 90% capital coming in from overseas investors This will tackle both the cutting edge technology based entrepreneurs and social venture partners

CSC to be harnessed for Banking access in rural areas

Recently Ministry of Communication and Information Technology said that CSC will be used for providing banking access in rural areas.

What is CSC?

Common Service Center (CSC) is a one stop access point of all the electronic/e-governance services at the village level. It lies at the core of Digital India programme by providing universal public access to internet. CSC is a SPV.

Significance of CSC

CSC will not only act as service delivery points but also as agents of social and economic change by unleashing the entrepreneurial talent in rural areas. The local level entrepreneur who establishes CSC can act as role model and help others in starting their ventures by using digital means.

The CSC is going to act as the local footprint of Digital India campaign and therefore the success of Digital India will depend on success of CSC.

What kind of services can be accessed?

CSC will offer various kinds of services like:

- Access to information : All remote/ rural citizens
- Delivery of public services - Government to Citizen & Business to Consumer
- ICT for rural Empowerment of socially disadvantaged people for inclusive growth
- Access to quality education / skill upgradation
- Access to cost efficient & quality health services

How it can be leveraged for financial inclusion?

- a. CSC can be used for achieving the objective of financial inclusion. It can successfully complement Jan Dhan Yojana. CSC can act as banking service access point or bank correspondent by using biometric authentication system.
- b. The Jan Dhan Yojana calls for opening of bank account.
- c. Only opening of bank account is not sufficient. It has to be operationalised. Banks do not have local presence. In such cases CSC can provide financial services like payment, remittance etc. by using digital technologies like digital wallet.

Challenges:

- a. Success of CSC depends on successful layout of (NOFN) National Optical Fibre Network whose implementation is delayed.
- b. Availability of content in local language.
- c. Digital literacy and financial literacy in India is very low.

Opportunities:

- a. They can also act as wifi access points.
- b. E-commerce in rural areas can be boosted. Local entrepreneurs can use the internet services to showcase their products.
- c. It can transform the agriculture sector by providing information regarding prevailing market rates.

Association of World Election Bodies (A-Web)

- Election Commission of India (ECI) hosted the 4th Executive Board meeting of the Association of World Election Bodies (A-WEB) in New Delhi recently. ECI is currently serving its second term as a member of the Executive Board of the world body.

Key facts about A-WEB

- The Association of World Election Bodies, commonly referred to as 'A-WEB,' was established on October 14, 2013 in Song-do, South Korea. A-WEB is the 1st global organization of election management bodies, and the membership currently consists of 97 organizations from 94 countries. Under the slogan of 'Democracy to Grow for All Worldwide,' the A-WEB Secretariat provides training programs for election officials of member nations and undertakes country programs at the request of member organization, providing support during the election cycle to boost election management capacity

Issues discussed in the meeting

- The meeting was chaired by Roberto Rosario Marquez, President of the Central Electoral Board of the Dominican Republic.
- In his welcome address, Dr. Nasim Zaidi, Chief Election Commissioner, recalled that the A-WEB is a comparatively young organization, launched in October 2013. He stated that while the membership of the association is growing (currently 102 democratic countries and 4 International organizations), the organization has also expanded its activities under the very able guidance of the first Chair, Korea and the current Chair, Dominican Republic.
- India offered to collaborate with A-WEB in hosting some of its capacity building programmes at the India International Institute of Democracy and Election Management (IIIDEM).
- The executive board OF A-WEB approved the proceedings of previous meeting. It also considered and approved the progress report, financial and audit reports for 2015 and adopted the Budget and Work Plans for 2016.
- The Executive Board meets annually to discuss important issues and report to the General Assembly of the association which meets every 2 years.
- The executive board also conducted elections of New Members of the Oversight and Audit

Committee. Cameroon, Ecuador and Kosovo were elected as new members of the Committee w.e.f. October 2016.

India Remains World's Largest Arms Importer

- India remains the world's largest weapons importer over a 5 year period according to latest report of the Stockholm International Peace Research Institute (SIPRI) on global arms purchases.

Key Highlights of the report

- India accounted for (14%) of total imports between 2011 and 2015. China ranks second with (4.7%), Australia (3.6%), Pakistan (3.3%), Vietnam (2.9%) and South Korea (2.6%) the report titled "Trends in international arms transfers-2015".
- On an Annual basis India ceded its top spot to Saudi Arabia in 2015 which is reflective of the turmoil in the West Asia.
- The top 5 exporters in the period were U.S., Russia, China, France and Germany.
- Noting that India's arms exports has jumped by 90% between 2006-2010 and 2011-2015, SIPRI reiterated the well-acknowledged fact that "a major reason for the high-level of imports is that the Indian arms industry has so far largely failed to produce competitive indigenously-designed weapons".
- While Russia maintains a strong lead as the top supplier to India, purchases from U.S. are sharply increasing.

Report Highlights on China

- China figures at 3rd place as an exporter and importer. China which has emerged as the world's 3rd largest arms exporter after U.S. and Russia has increased its exports of major arms by 88 % between 2006-2010 and 2011-2015 and concurrently China's global share of arms exports rose from 3.6 to 5.9%.
- China supplied major arms to 37 states in 2011-15, but the majority of these exports (75%) were to states in Asia and Oceania,, the report said. Major arms include big platforms like aircraft, tanks
- China sold most of its weapons to India's neighbors, which is alarming trend for India. Pakistan is the main recipient of Chinese arms exports, notching up 35% of the total, followed by Bangladesh (20%) and Myanmar (16%). Russia, in turn, is China's largest arms supplier with 59%, followed by France (15%) and Ukraine (14%).

- Chinese exports of major arms to states in Asia and Oceania in 2011-15 were 139% higher than in 2006-10, the report added. This is likely to cross path with India's own increased forays in the Indian Ocean region with emphasis on military diplomacy and capacity building.

Sammakka Saralamma Jatara (Asia's biggest tribal fair)

- Sammakka Saralamma Jatara claimed to be Asia's largest tribal religious fair concluded recently in Andhra Pradesh recently. Large number of people had gathered to pay obeisance to tribal goddesses Sammakka and Sarakka.
- Sammakka Sarakka Jatara is a Hindu tribal festival held every 2 years (biennially).
- It is a tribal festival of honouring the goddesses celebrated in the state of Telangana, India. The Jatara begins at Medaram in Tadvai Mandal in Warangal district.
- It commemorates the fight of a mother and daughter, Sammakka and Saralamma, with the reigning rulers against an unjust law.
- It is believed that after Kumbha Mela, the Medaram jatara attracts the largest number of devotees in the country and marks the celebration of tribal traditions during which people offer bangaram/gold (jaggery) to their weight to the goddesses and take holy bath in Jampanna Vagu (stream).

India's 1st Nuclear Submarine INS Arihant

India's 1st Armed Nuclear Submarine passed several deep sea diving drills as well as weapons launch tests over the past 5 months and a formal induction into the naval fleet is only a political call away.

- The Arihant, is the first of five nuclear missile submarines or SSBNs designed and constructed as a part of the Indian Navy's secretive Advanced Technology Vessel (ATV) project.
- The Arihant-class submarines are reported to be based on the Akula-class submarine. Their crew will have the opportunity to train on INS Chakra, an Akula-class submarine, which the Indian Navy leased from Russia. Arihant will be more of "a technology demonstrator", rather than a fully operational SSBN.
- The vessel will be powered by an 83 megawatts (111,305 hp) pressurised light-water reactor with uranium fuel.

- The submarine is to be equipped with K 15 (or BO-5) shortrange missiles with a range of over 700 km and the K 4 ballistic missile with a range of 3,500 km.

Deadly Deep Sea Hunter

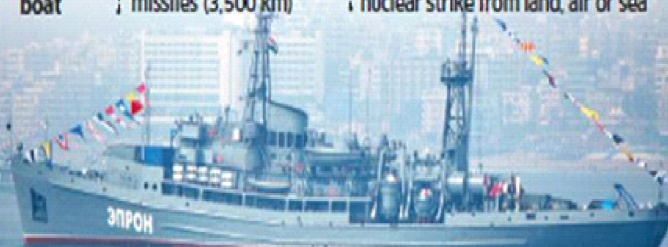
THE ARIHANT

Subma-
rine to be
a 6,000
ton class
boat

TWO MORE ARIHANT class submarines under construction

ARMED WITH 12 SHORT range K-15 missiles (700 km) or four K-4 ballistic missiles (3,500 km)

CAN LAUNCH NUCLEAR weapons from underwater completing the nuclear trial - the ability to launch a nuclear strike from land, air or sea



Russian Navy vessel RFS Epron accompanying the Arihant on deep sea dives and launch tests

THE LONG JOURNEY

- 1970s** Project sanctioned
- 1984** Design and technology finalized, project approved
- 1998** Work on Arihant starts with heavy involvement of private sector. L&T, Walchand-nagar major partners
- 2009** Arihant revealed for the first time
- 2013** The reactor on board the Arihant goes critical, pushing the submarine to its final stage of tests
- 2016** Extensive trials ends. Submarine ready for commissioning

India in Cobra gold exercise hosted by Thailand.

- India along with China has been invited to participate for implementation of international humanitarian operations in International military exercises Cobra Gold, the largest in the Asia-Pacific region, that began in Thailand recently.
- Maneuvers have been held annually in Thailand sault scenarios, jungle survival lessons, and civic assistance programs in underdeveloped regions of Thailand.
- Participating in all phases of the Cobra Gold will also be contingents from Indonesia, Malaysia, South Korea, and Singapore. Military personnel from Brunei, Vietnam, Chile, Laos, Myanmar, the Netherlands, Saudi Arabia, South Africa and the UAE are participating as observers at the exercises.

Cobra Gold:

- It was established as a military training exercise between the U.S. and Thailand in 1982, and has gone on to become the largest multinational military exercise in South-east Asia.

- Although the exercises started off as bilateral exercises meant to increase ties between the United States and Thailand, Cobra Gold has morphed into a multinational exercise program.

Road to Resilience

- The Road to Resilience is an initiative of the World Bank, under which a team undertook a bus trip along the entire Indian coastline. The journey commenced on 10 January 2016 and ended on 15 February 2016. The bus journey is an opportunity to raise awareness about risk mitigation and long-term climate resilience along the country's vast coastline.
- The objective of this road to resilience trip is to support the implementation of 6 coastal disaster management and climate resilience projects covering all 10 coastal states of India. Some of those projects aim to enhance resilience and mitigate the impact of future disasters, while others are intended to help the country recover from previous events such as Cyclone Phailin (2013) and Cyclone Hudhud (2014).
- The "Road to Resilience" initiative is also a unique opportunity to raise awareness about risk mitigation and to interact more directly with local communities, who play a crucial role in preventing and responding to disaster.

Key initiatives under road to resilience Programme

- The total lending for the project by the World Bank was 1.3 billion dollars
- Under the project, combined 1000 cyclone shelters were set up with the help of coastal communities especially in Odisha and Andhra Pradesh
- Tsunami early warning centers have been set up to serve close to 50 million people
- The programme Focused on building combined infrastructure as well as softer Disaster Risk Management (DRM) projects
- Underground cabling is being done in a big way in many states as in coastal areas electrical network are the most vulnerable especially in high wind cyclonic conditions.

India to host 3rd Asia Ministerial Conference on Tiger Conservation

- India will host the 3rd Asia Ministerial Conference on Tiger Conservation to be held in April. The Conference is expected to bring desired will and momentum for tiger conservation at global level.

- It will be attended by 13 participating countries including Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Lao PDR, Malaysia, Myanmar, Nepal, Russia, Thailand, and Vietnam.
- The meeting aims at promoting awareness about tiger conservation across Asia and the world. All the participating countries will share their knowledge of tiger conservation and help each other through exchange of ideas.
- India being home to large number of tiger population will bind the participating countries in a long term collaboration, in order to save and conserve tigers better and play a pivotal role.

Tiger population in India:

India is home to nearly 70% of the world's tiger population and according to the 2014 tiger census, there are 2,226 tigers in the country. State-wise, Karnatakas has the highest number of tigers (406) followed by 340 in Uttarakhand, 308 in Madhya Pradesh, 229 in Tamil Nadu, 190 in Maharashtra, 167 in Assam, 136 in Kerala and 117 in Uttar Pradesh.

Rare Falcated Duck sighted in Goa

The Birders of Goa have sighted a new bird Falcated Duck, a very rare vagrant species to the south of India. The bird has become the latest addition to the checklist of 'Birds of Goa'.

This is the 3rd report of the bird of this type from south India. The 1st was reported from Tamil Nadu in 2012 while in January 2015 a single individual was reported from Akola in Maharashtra.

About Falcated Duck:

- The Falcated duck is a regular winter migrant to the northern States of India. They breed in Russia and north China in summers and migrates towards north of India in winter. Some individuals though are known to move further south.
- Falcated duck is classified as near threatened in terms of its conservation prioritization by International Union for Conservation of Nature. Recent estimates have put the world population of this species to be just about 89,000 individuals.
- The greatest threat faced by this species globally is the loss of habitat and hunting. Loss of habitat in their winter migratory region is also a cause of concern.

Madhya Pradesh appeals against IPAB order on Basmati

- Madhya Pradesh government has moved the Madras High Court against the Intellectual Property Appellate Board (IPAB) order that directed the

Registrar of Geographical Indications (GI) to issue a GI tag for Basmati rice in India, asserting that the recent order of the Intellectual Property Appellate Board (IPAB) directing the Geographical Indications Registry to proceed with registration of a Geographical Indication (GI) tag for Basmati rice according to the geographical demarcation conducted by the Agricultural and Processed Food Products Export Development Authority (APEDA) is unscientific and erroneous.

- The government of Madhya Pradesh has moved a writ petition to set aside the order of the Intellectual Property Appellate Board (IPAB), related to the registration of Geographical Indication (GI) for Basmati rice as the IPAB order for registration of Geographical Indication (GI) tag for Basmati rice as per the geographical demarcation conducted by APEDA did not have the areas of Madhya Pradesh covered under it.
- It has claimed that 13 out of its 51 districts has been cultivating Basmati rice and is entitled to receive the GI protection.

Background:

- Intellectual Property Appellate Board (IPAB) ordered the Geographical Indications Registry to give GI recognition for the aromatic basmati rice in the Indo Gangetic Plains (IGP) in the Himalayan foothills to preserve the unique identity of the aromatic rice in the international markets.
- This will cover the unique variety of rice cultivated in Punjab, Haryana, Himachal Pradesh, Delhi, Uttarakhand, Western UP and 2 Districts of J&K - Jammu and Kathua.

LIGO and the INDIGO

LIGO- Laser Interferometer Gravitational Wave Observatory- is a large scale collaboration between scientists of MIT, Caltech and other institutions. Founded in 1992 aimed at detecting the gravitational waves that were once predicted by Einstein and also validate this general theory of relativity.

What are Gravitational waves:

- Gravitational waves are ripples in the space time curvature travelling outward from the source produced by violent events such as collision of 2 black holes or by supernova explosion. They are produced by accelerating masses just the same as accelerating charged particles produce radio waves (electrons in antennas)
- Gravitational waves are akin to Electromagnetic waves, but emitted by gravitating bodies in motion such as black holes, spiraling towards each other in binary orbits

Properties

- Can penetrate regions of space that Electromagnetic wave have no reach
- Gravitational wave are hypothesize to arise from cosmic inflation (expansion of universe after bigbang)

How do the waves manifest themselves on the earth?

Gravitational waves travel at the speed of light and distort space-time on their path. The effect would be such that the length between two objects on earth would vary with time whenever a wave is passing through them. But these variations are so small, it is impossible to directly measure them even with the most accurate measuring techniques.

What is the significance of the discovery?

- Gravitational wave Astronomy: This discovery opens a new avenue for space exploration. Our primary tool for exploring the universe is observation through telescopes that rely only on light waves reaching us from outer space. But objects like black-hole and dark matter do not emit light and there is no easy way to detect them. However, they can interact via gravity, and gravitational waves might be the only agent which carries their information to us. Though the current technology is not adequate to make large-scale detections using gravitational waves, this might be a 1st step to unveiling a brand new technique of observing the unobserved part of universe.

Lastly, The discovery almost confirms Einstein's General Relativity beyond doubt. This will help in developing further research in several theoretical fields such as Quantum Gravity and unification of the fundamental forces.

- Clue about origin of universe: Light could not pass through the opaque plasma medium of early universe. However GW could easily propagate. Hence carry the clue to origin of the universe

LIGO and the Indian Initiative in Gravitational Observations (IndIGO) have proposed a collaborative project to create a world-class gravitational-wave detector in India. Final approval has not been granted yet. If approved, this project would mark a giant leap in India's research in Observational Astronomy.

Einstein Theory of Relativity:

It says that, the laws of physics are the same for all non-accelerating observers, and he showed that the speed of light within a vacuum is the same no matter the speed at which an observer travels. Means if A and B are moving at same speed than there will be no difference in their observance of laws of physics.

India's gravitational wave observatory initiative (IndIGO)

- The Indian cabinet has approved the construction of the country's own laser interferometer gravitational-wave observatory for cosmology research. It has given permission to establish a state-of-the-art gravitational wave observatory in the country in collaboration with the Laser Interferometer Gravitational-wave Observatory (LIGO) in the US.
- The project will build an Advanced LIGO Observatory in India, a move that will significantly improve the ability of scientists to pinpoint the sources of gravitational waves and analyze the signals.
- Gravitational waves are ripples in the fabric of space and time produced by dramatic events in the universe, such as merging black holes, and predicted as a consequence of Albert Einstein's 1915 general theory of relativity and carry information about their origins and about the nature of gravity that cannot otherwise be obtained.
- This will open a new window onto the cosmos and will also bring considerable opportunities in cutting edge technology for the Indian industry.

IndIGO:

- IndIGO, the Indian Initiative in Gravitational-wave Observations, is an initiative to set up advanced experimental facilities, with appropriate theoretical and computational support, for a multi-institutional Indian national project in gravitational-wave astronomy. Since 2009, the IndIGO Consortium has been involved in constructing the Indian road-map for Gravitational Wave Astronomy and a phased strategy towards Indian participation in realizing the crucial gravitational-wave observatory in the Asia-Pacific region.

India successfully test-fired indigenously developed Prithvi II missile from Chandipur

- India has successfully test-fired its indigenously developed Prithvi-II missile, which is capable of carrying 500 kg to 1000 kg of warheads, as part of a user trial by the Army from a test range at Chandipur.
- The missile test was carried out from a mobile launcher from launch complex-3 of the Integrated Test Range (ITR).
- Inducted into India's armed forces in 2003, the 1st missile to be developed by DRDO under India's prestigious IGMDP (Integrated Guided Missile Development Program) is now a proven technology.

- Such training launches indicate India's operational readiness to meet any eventuality and also establishes the reliability of deterrent component of India's Strategic arsenal.

PRITHVI II

- Prithvi II class is a single-stage liquid-fuelled missile having a maximum warhead mounting capability of 500 kg, but with an extended range of 250 km (160 mi).
- With a strike range of 350 km, the surface-to-surface Prithvi-II is capable of carrying 500 kg to 1,000 kg of warheads and is thrust by liquid propulsion twin engines.
- It uses advanced inertial guidance system with manoeuvring trajectory to hit its target.

Anti-Radiation missile

- DRDO is planning to conduct trials of anti radiation missile.
- It is an air-to-surface tactical missile being developed by Defence Research and Development Laboratory (DRDL)
- It will target the enemy's air defence capabilities by attacking radars and communication facilities.
- The range of the missile is 100 to 125 km.
- It will be mounted on combat aircraft Sukhoi (Su-30) and Tejas-Light Combat Aircraft.
- The entire missile is being developed indigenously

What is anti radiation missile?

- The missile picks up the radiation or signals of radars and communication facilities and homes on to the targets to destroy them.
- Instead of thrust propulsion, the missile uses dual pulse propulsion system.
- The dual pulse propulsion system provides the capability of high agility to the missile system especially in the endgame scenarios and enlarges the no escape zone of the target.

GI tag for 4 Bengali sweets

- West Bengal government is planning to get Geographical Indication (GI) tag for four traditional sweet delicacies of the state.
- These are Moa of Jainagar, Sarpuria of Krishnagar, and Mihidana and Sitabhog of Burdwan.
- It will help to protect these sweets from cheap imitations and also help preserve their quality. It will also help to boost their exports.

- 'Jainagar-er moa' is made of puffed rice and date palm jaggery at Jainagar in South 24 Parganas district, Krishnagar of Nadia district is famous for 'Sarpuria' which is made of milk cream. 'Sitabhog' and 'Mihidana' are rice-based sweets from Burdwan.
- Geographical Indication (GI) It is given to products that have a specific geographical origin and possess qualities or a reputation that are due to that origin. In India, GI registration is governed by the Geographical Indications of goods (Registration and Protection) Act, 1999.
- In order to function as a GI, a sign must identify a product as originating in a given place. It is valid for a period of 10 years and has to be renewed thereafter

2D semi-conducting material for electronics

A team led by an Indian-origin engineer from the University of Utah has discovered a new kind of 2D semiconducting material for electronics that opens the door for much speedier computers and smart phones that consume a lot less power.

It can be used in transistors, the lifeblood of all electronic devices such as computer processors and graphics processors in desktop computers and mobile devices.

The semiconductor made of the elements tin and oxygen or tin monoxide (SnO) is a layer of 2D material only one atom thick.

Transistors and other components used in electronic devices are currently made of 3D materials such as silicon and consist of multiple layers on a glass substrate. But the downside to 3D materials is that electrons bounce around inside the layers in all directions.

Benefits of 2D semiconductor devices:

The benefit of 2D materials is that, the material is made of one layer the thickness of just one or two atoms. Consequently, the electrons can only move in one layer so it's much faster. electrons move through one layer instead of bouncing around in a 3D material, there will be less friction, meaning the processors will not get as hot as normal computer chips.

Medical devices such as electronic implants made of it will run longer on a single battery charge

Devices made of 2D material semiconductor would be 100 time faster than regular devices.

World's 1st fast-acting Anti-Rabies drug to be launched in India

The first fast-acting antirabies drug of the world which instantly deactivates the virus will be launched in India this year. The drug, called Rabishield, will provide immediate protection in severe dog-bite cases by instantly deactivating the rabies virus. The drug has been manufactured using recombinant DNA technology and developed by Pune-based Serum Institute of India (SII) and US-based MassBiologics of the University of Massachusetts Medical School. It is first-of-its-kind human monoclonal antibody-identical to human immune cells.

Benefits:

- The new drug will be 25% cheaper than the existing rabies immunoglobulins, so it would meet the needs of the poor people.
- It will provide ready antibody unlike the present vaccine which usually takes 14 days to produce antibodies.
- When used in combination with the rabies vaccine, the fastacting rabies human monoclonal antibody does away with the expensive Human Rabies Immuno Globulin (HRIG), making the treatment more costeffective.
- The new drug automatically prevents the chances of transmitting blood-borne infections that might happen while administering rabies immunoglobulin.

Target Olympic Podium Scheme

- Ministry of Youth Affairs and Sports (Department of Sports) have formulated 'NSDF Target Olympic Podium (TOP) Scheme' in the National Sports Development Fund (NSDF) with the objective of identifying and supporting potential medal prospects for 2016 and 2020 Olympic Games.
- The scheme aims to provide world class training facilities and preparation for potential medal winners for the 2016 Rio Olympics 2016.
- Focused disciplines will be Athletics, Archery, Badminton, Boxing, Wrestling and Shooting.
- The selected athletes will be provided financial assistance for their customized training at Institutes having world class facilities and other necessary support. Benchmark for selection of athletes under the scheme will be in relation to international standards. There will be annual/semi-annual review of performance of selected athletes.
- Customized training at Institutes having world class facilities and other necessary support is being provided to the elite athletes, which would result

in improved performance and a higher position in medals tally for the country in international sports events and mega-sports events.

CGPDTM issues, revised Patent Guidelines for Computer Related Inventions

CGPDTM has issued revised patent guidelines for CRIs (Computer Related Inventions). It has in its order excluded software patents.

The aim of these guidelines are to “further foster uniformity and consistency in the examination of CRIs” and “bring out clarity in terms of exclusions expected under Section 3(k) so that eligible applications of patents relating to CRIs can be examined speedily”.

The main provisions of the revised guidelines are highlighted below:

- Computer programs per se are excluded from patentability
- 3 step test for determining patentability of CRI has been laid down which include:
- Properly construe the claim and identify the actual contribution;
- If the contribution lies only in mathematical method, business method or algorithm, deny the claims; If the contribution lies in the field of computer programme, check whether it is claimed in conjunction with a novel hardware and proceed to other steps to determine patentability with respect to the invention. The computer programme in itself is never patentable. If the contribution lies solely in the computer programme, deny the claims. If

the contribution lies in both the computer programme as well as hardware, proceed to other steps of patentability

hardware based inventions, each and every feature of the invention shall be described with suitable illustrative drawings.

The working relationship of different components together with connectivity shall be described.

The desired result/output or the outcome of the invention as envisaged in the specification and of any intermediate applicable components/steps shall be clearly described.

Claims which are directed towards computer programs per se are excluded from patentability such as, (i) Claims directed at computer programmes/ set of instructions/ Routines and/or Sub-routines. (ii) Claims directed at “computer programme products” / “Storage Medium having instructions” / “Database” / “Computer Memory with instruction” i.e. computer programmes per se stored in a computer readable medium.

Controller General of Patents, Designs, and Trade Marks

The Office of the Controller General of Patents, Designs & Trade Marks (CGPDTM) is located at Mumbai. The Controller General supervises the working of the Patents Act, 1970, as amended, the Designs Act, 2000 and the Trade Marks Act, 1999 and also renders advice to the Government on matters relating to these subjects. In order to protect the Geographical Indications of goods a Geographical Indications Registry has been established in Chennai to administer the Geographical Indications of Goods (Registration and Protection) Act, 1999 under the CGPDTM.
