

VISIONIAS

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CURRENT AFFAIRS

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POLITY AND GOVERNANCE









GLOBAL RULE OF LAW INDEX

India

Mumbai, Delhi, Bangalore

Region: South Asia | Income group: Lower middle income

Overall Score	Regional Rank	Income Rank	Global Rank
0.51	3/6	10/25	59/102

		Factor Trend	Factor Score	Regional Rank	Income Rank	Global Rank
	Constraints on Government Powers	—	0.62	2/6	5/25	38/102
	Absence of Corruption	—	0.4	2/6	11/25	68/102
	Open Government	—	0.57	1/6	3/25	37/102
	Fundamental Rights	—	0.54	2/6	9/25	61/102
	Order and Security	▲	0.58	4/6	20/25	90/102
	Regulatory Enforcement	—	0.45	3/6	12/25	69/102
	Civil Justice	—	0.42	3/6	19/25	88/102
	Criminal Justice	—	0.47	1/6	4/25	44/102

▲ Trending up ▼ Trending down ■ Low ■ Medium ■ High

- The Rule of Law Index 2015, released by the U.S.-based World Justice project, has ranked 102 countries worldwide.
- According to the 2015 Index, India's overall rule of law performance places it in the third position out of six countries in the South Asian region, 10th out of 25 among lower middle income countries, and 59th out of 102 countries worldwide. The top overall performer in the WJP Rule of Law Index 2015 was Denmark while in the South Asia region, the top performer was Nepal.
- India figures in the top 50 countries in the world for an effective criminal justice system. The surveys analysed whether the criminal investigation and adjudication system is effective, whether it was impartial and free of corruption and whether the rights of the accused were protected.
- However, the study finds that India is among the worst performing countries when it comes to civil justice. In stark contrast, the corresponding ranking in civil justice for India is **88th globally, 3rd in South Asia and 19th among lower middle income countries**. The survey looked at accessibility to civil justice, which includes general awareness of available remedies, availability and affordability of legal advice and representation, and absence of excessive or unreasonable fees and hurdles.

- India ranks high in the category of Open Government, placing it **37th globally and at three among lower middle income countries**. The open government index uses four dimensions to measure government openness — publicised laws and government data, right to information, civic participation and complaint mechanisms.
- The country performs worst however, in the category of order and security, **placing at 90th worldwide, 4th in South Asia and 20 among lower middle income countries**. The measures used for this category are absence of crime; absence of civil conflict, including terrorism and armed conflict; and absence of violence as a socially acceptable means to redress personal grievances.

The World Justice Project (WJP)

The World Justice Project (WJP) is an independent, multidisciplinary organization working to advance the rule of law around the world. The rule of law provides the foundation for communities of opportunity and equity – communities that offer sustainable economic development, accountable government, and respect for fundamental rights.

Rule of Law Index

The World Justice Project Rule of Law Index is an quantitative assessment tool designed to offer a detailed and comprehensive picture of the extent to which countries adhere to the rule of law in practice. The Index provides new data on **eight dimensions** of the rule of law: (1) **limited government powers**; (2) **absence of corruption**; (3) **order and security**; (4) **fundamental rights**; (5) **open government**; (6) **regulatory enforcement**; (7) **civil justice**; and (8) **criminal justice**. These factors are further disaggregated into **52 sub-factors**. Together, they provide a comprehensive picture of rule of law compliance.

RIGHT TO CLEARANCE: AN INNOVATIVE APPROACH BY TELANGANA GOVT

- To create a business-friendly environment, the Telangana Government has announced a unique and highly welcome Right to Clearance policy.
- **Akin to the Right to Information, the Right to Clearance (R2C)** recognizes that businesses have **the right to know why project proposals are being delayed and to demand redress for unnecessary procrastination**.
- It will involve:
 - Laying down a **15-day time limit** for the clearance of mega-projects involving over Rs.200 crore, and of one month for smaller projects.
 - A provision to **impose a fine of Rs.1,000 on officials** for each day of delay in granting clearance to a project.
 - Allowing businesses to know **the exact reason** why a proposal is stuck.

BENEFITS FROM RIGHT TO CLEARANCE POLICY

- Provisions in R2C and other features such as single-window clearances, automatic renewals and self-certification, will go a long way towards creating an ecosystem that **eases doing business** in the State.
- This will **reduce the opportunity costs** of clearance delays. Such cost and time overruns impact the viability not just of industries but also of lending institutions.
- This will assure industry of **“a graft-free and hassle-free system”** that will remove lobbies and middlemen. Moves such as this will help **rid the bureaucracy of inertia, and inject a sense of urgency and responsibility into the system**.
- The move not only empowers industries but also **raises the bar considerably**, and other States will have to match the offer if they don't want to lose out amid the growing inter-State competition for investment.

IMPOSING YOGA OR SURYANAMASKAR: IS IT AGAINST RELIGIOUS FREEDOM?

In ***Bijoe Emmanuel case of 1987***, the Indian Supreme Court ruled that mandatory singing of the national anthem could not be imposed on pupils who genuinely believed that it was against their religious belief. Affirming its universal truth, our Supreme Court ruled that if any religious belief is “genuinely and conscientiously held, it attracts the protection of Article 25”.

The **controversy over yoga and suryanamaskar** should be judged in light of these judicial pronouncements.

- **Article 25** of the Constitution declares that “all persons are equally entitled to freedom of conscience and the right to freely profess, practise and propagate religion”.
- **Articles 28** proclaims that “No person attending any educational institution recognised by the state or receiving aid out of state funds shall be required to take part in any religious instruction that may be imparted in such institution, or to attend any religious worship that may be conducted in such institution or in any premises attached thereto unless such person or, if such person is a minor, his guardian, has given his consent thereto.”
- The first fundamental duty of a citizen under **Article 51A** is “to abide by the Constitution and respect its ideals and institutions, the national flag and the national anthem”.
- The **Prevention of Insults to National Honour Act 1971**, till date recognises **only three things — the Constitution, the national flag and the national anthem** — as symbols of national honour and prescribes penalties for insulting these. Section 2 of the act prescribes penalties for “whoever... shows disrespect to or brings into contempt (whether by words, either spoken or written, or by acts) the Indian national flag or the Constitution of India or any part thereof”, and the next section for intentionally preventing singing of the national anthem or causing disturbance to any assembly engaged in its singing. The SC had given its Bijoe Emmanuel ruling with reference to these provisions of the Constitution and the 1971 act.
- Any health-building tradition of India, however historic or beneficial, or any religious practice, however widely prevalent in society, cannot be put on a higher pedestal than the national flag and the national anthem. They cannot be imposed on unwilling individuals or communities in violation of the clear provisions of Articles 25 and 28. If public authorities do so, it would, to use the words of Justice Jackson, “transcend constitutional limitations on their power”. And those who are demanding that they be made mandatory are clearly violating the letter and spirit of the 1971 act, which declares it an offence to “show disrespect and bring into contempt the Constitution”. The right of conscientious objectors who want to be exempted from following any such tradition or practice is unequivocally protected by the Constitution and judicial precedents. **The choice between people’s genuine religious beliefs and what others may see as a test of patriotism has to be unconditionally left to individual citizens.**
- As per Bijoe Emmanuel, “Article 25 is an article of faith in the Constitution, incorporated in recognition of the principle that the real test of a true democracy is the ability of even an insignificant minority to find its identity under the country’s Constitution.” Neither the rulers of the day nor right-thinking citizens of the country can afford to overlook this “real test of democracy”.

KERALA HIGH COURT SAYS- JUST BEING MAOIST IS NOT ILLEGAL

- Kerala High Court freed Shyam Balakrishnan, who had been picked up in 2014 on suspicion of being a Maoist, saying “being a Maoist is not a crime”. The court said that **although the political ideology of the Maoists ran counter to India’s constitutional polity, a person could be prosecuted only if it could be proved that he had acted unlawfully as a result of his adherence to this ideology.**
- This is not the first time that the question of adherence to the ideology of a banned outfit such as the Communist Party of India (Maoist) has come before a court of law. The Supreme Court and High Courts have earlier made a distinction between having a particular ideology, and acting in furtherance of it.
 - In 2011, the Kerala government challenged the bail for Dr Raneef, whom the police had accused of being a member of a terrorist organization, and booked under UAPA. Declining to interfere with the High Court’s order, the SC borrowed from a US Supreme Court verdict to reject the theory of “**guilt by association**”.

- Also in 2011, the SC set aside the conviction of Arup Bhuyan and Indra Das, who were held guilty under TADA for being members of ULFA — saying that ***mere membership of a banned organisation would not incriminate a person unless he resorted to violence or incited people to violence, or did an act intended to create disorder or disturbance of public peace.***
- That same year, Gujarat High Court released on bail five members of the Janashakti organisation, which worked with the CPI (Maoist). Surat police had found documents such as agenda of a meeting and literature on revolution and lessons, including one on the guerrilla warfare of the CPI (Maoist). The court held ***mere possession of such literature without actual execution of the ideas in them would not amount to an offence.***
- While granting bail to Binayak Sen in April 2011, the SC said that the human rights activist may be a Maoist sympathiser and possessed some material on that ideology, but that could not automatically make him guilty of sedition. If the state could not prove that Sen had propagated the ideology or acted in collusion with Naxalites, even meeting a hardcore Naxalite such as Narayan Sanyal in jail was not enough to prosecute him, the court said.
- Hence, “membership” of a banned outfit has to be active — not passive — to attract penal provisions. The verdict of the Kerala High Court sits perfectly with this understanding.

GLOBAL PEACE INDEX 2015

- The Global Peace Index for 2015, released by nonprofit **Institute for Economics and Peace**, ranked 162 nations around the globe based on **22 indicators** that includes **military spending, homicide rates and deaths from conflict, civil disobedience and terrorism** etc.
- **Over the past seven years**, the IEP said its average global peace indicator for all the countries in the world together moved from 1.96 to 2.06, **indicating a less peaceful world.**
- **India ranks a lowly 143rd** on a global peace index, lagging way behind the likes of Bhutan (18), Nepal (62), Sri Lanka (114) and Bangladesh (84). Pakistan is ranked at 154, while Afghanistan at 160.
- **Reasons:**
 - **Maoist movement** was one of the **biggest threats** to India’s internal security, says the report.
 - At the same time, sporadic **conflict with its neighbours** threatens its external security. The country’s diverse population.
 - The recent emergence of **Telangana** have also resulted in several “pockets of ethnic conflict”, adding India scores poorly on the Political Terror Scale.
- **The economic impact** of containing and dealing with the consequences of India’s levels of violence was estimated to cost the national economy USD177 billion in 2013. This is equivalent to 3.6 % of India’s GDP, the report said.
- **Iceland** has emerged as the **most peaceful nation** in the world. Six out of the top 10 most peaceful countries were European, with **Denmark and Austria** holding the second and third. **US is also ranked at a lowly 94 scoring badly in terms of militarisation, homicides and fear of violence. China is ranked 124.**
- **Syria and Iraq** where the Islamic State terror group has taken over large swathes of land are at the bottom of the table as the least peaceful countries, with South Sudan, Central African Republic, Ukraine and Egypt showing some of the sharpest falls in security levels.

BIBEK DEBROY COMMITTEE REPORT ON RESTRUCTURING OF RAILWAYS

The Bibek Debroy committee report on the restructuring of Indian Railways lays down a five-year roadmap to evolve a statutory rail regulator, scrap the Rail Budget and make room for more players in an “open access” regime which turns the Railways into just another train-service provider in the country.

- Committee's recommendations are based on **three pillars: commercial accounting, changes in HR and an independent regulator**.
- The report envisages the creation of **a Railway Ministry eventually with at least three Secretary-level officers** ("not attached with the Railway Board") to lay down policy for the rail sector, not just of Railways alone that "should ensure competition...encourage private entry and private investments."
- The report makes the existence of an independent, quasi-judicial **Railway Regulatory Authority of India** a prerequisite for reforms like un-bundling and restructuring of Railways. It will be up to the Regulator to **decide technical standards, set freight rates and resolve disputes**. The Regulator can **recommend fare revisions** but these will not be binding on the Railway Ministry.
- The Regulator will work under the policy framed by the Ministry, while the present Railway Board will become a board of Indian Railways — the government-run operator — alone. The Board itself might be pruned to having only five secretary-level officers from the present seven.
- The **Rail Budget should cease to exist after 5 years** and the government should take the entire burden of social cost borne by Railways by way of subsidy.
- The first five years will see preparatory work: migration to a commercial accounting system (to figure out the social cost burden) in two years; uniform induction system of all new Human Resource; and devolution of powers to General Managers, Divisional Railway Managers and Station Managers.
- It recommended separation of railway track construction, train operations, and rolling-stock production units under **different entities** to enable open access.
- The Dedicated Freight Corridor Corporation Limited (DFCCL) should be made **autonomous and separated from Indian Railways** so that it gives non-discriminatory access to both Indian Railways and private operators. The Committee *does not recommend privatization of Indian Railways*. It does, *however endorse private entry... with the proviso of an independent regulator*. *The committee recommended commercial accounting as without it is difficult to know the rate of return on the projects.*

NEED TO REVISE ANTIQUITIES AND ART TREASURES ACT, 1972

India's beauty, history and cultural ancestry can be found in its artefacts and antiquities. They are windows to our past. However, the **issue of illegal smuggling of these antiquities** has almost entirely been ignored.

PROBLEMS IN ANTIQUITIES AND ART TREASURES ACT, 1972

- It was originally enacted in an era when capital, talent, money and wealth (including art and antiquities) were leaving the country in an exodus.
- The act was a knee-jerk reaction to keep Indian antiquities from leaving the country along with their private collectors. A **cumbersome registration process** was created to develop a wide-ranging database of such items.
- Further, the **legal definition is so wide** that anything over 100 years automatically became an antiquity.
- The act also introduced various avenues for the government to **raid and prosecute private collectors** on flimsy grounds, like "inadequate maintenance of the object". Such provisions deterred most people from registering their antiquities.

AMENDING THE ACT

Recognising the urgency of addressing the issue, Union Culture Minister recently proposed to the Union cabinet that the act be revised.

- In India, anything more than 100 years of value comes under the antiquity act. What is required is to have **an open market**. *India needs to first work on modernising the core regime. People should be encouraged to register their antiquities and trust the government not to harass them. An e-*

registration process would encourage more participation and help create transparency among stakeholders.

- **The definition has left enough room for interpretation**, leading ASI officers to make uninformed decisions. Hence the **definition should be made clear**.

CONCLUSION

- In 2011, a formal committee under **R.N. Mishra** was set up, with a view to ensuring free mobility of antiquities within the country. But nothing happened. Another committee was formed under Justice (retired) **Mukul Mudgal**, which submitted its report for possible amendments in 2012.
- What is required is the political will to implement these recommendations. Another point of contention concerns the **act's enforcement**.
- The ASI's lack of expertise in this area has been found to be a major systemic flaw. A larger, dedicated body of experts is needed to enhance **capacity building** of ASI.

GREENHOUSE GASES: INDIA FOURTH BIGGEST EMITTER

- As the global community gears up for the crucial Paris climate summit, the **World Resources Institute (WRI)** — a global research organization — has come out with its latest analyses of the country-wise emissions of climate-damaging greenhouse gases.
- Six of the top 10 emitters are developing countries.
 - **China ranks first**, contributing 25% of global emissions, making it the top emitter.
 - The **US and EU are the 2nd and 3rd largest emitters**.
 - India despite being the **4th largest carbon emitter** continues to be far behind the other three top big emitters in terms of per capita emission.

THRUST OF THE REPORT

- According to the figures, the top 10 emitters contribute over 72% of global greenhouse gas emissions (excluding land use change and forestry). On the other hand, the lowest 100 emitters contribute less than 3%. This justifies the need for **common but differentiated mitigation actions**, taking into account that developed nations have different capacities to do so.

COUNTRIES SPEWING POLLUTION			
TOP 10 EMITTERS OF GHG		TOP 10 PER CAPITA EMITTERS	
Countries	Percent of total emission	Countries	Ton of emission per capita
China	25.26	US	19.86
US	14.4	Russia	16.22
EU	10.16	Japan	10.54
India	6.96	Iran	9.36
Russia	5.36	EU	8.77
Japan	3.11	China	8.13
Brazil	2.34	Mexico	5.99
Indonesia	1.76	Brazil	5.10
Mexico	1.67	Indonesia	3.08
Iran	1.65	India	2.44

(Source: World Resources Institute)

- It shows the energy sector is the dominant source of greenhouse gas emissions. It contributes more than 75% of global emissions. A **rapid transformation of the energy sector by 2050** is necessary to avoid the worst impacts of climate change.
- The analysis also shows that emission sources vary by country. While the energy sector dominates, industrial emissions in China contribute more than 3% of global emissions and new data from the FAO indicate that agriculture contributes a notable share of Brazil's and Australia's emissions. **Mitigation policy options that countries pursue should therefore align with their national circumstances**.

ANDHRA GOVERNMENT TO SET UP KRISHI CABINET

- Chief Minister unveiled his plan to formulate a 'Krishi cabinet' with a group of ministers headed by him to give more thrust on agriculture. With this, Andhra Pradesh is set to become **third state after Bihar and Madhya Pradesh** to have the Krishi cabinet in the country.
- The State has taken the lead in introducing **a separate budget exclusively for agriculture** in 2015-16. The Krishi cabinet will meet every month and **take stock of the flow of funds for agriculture and the allied activities and implementation of the major plans** pertained to these areas on a fast track. **The Krishi cabinet would also aim at mitigating rural poverty by ensuring agriculture** a profitable activity through the mission on primary sector.
- In Andhra, 65 % of people live on agriculture in rural areas for whom the government has devised a state and district credit plan for agriculture.

BUREAU OF INDIA STANDARDS BILL 2015

The Union Cabinet gave its approval to introduce a new Bureau of Indian Standards Bill, 2015. The main objectives of the proposed legislation are:

- a) To establish the Bureau of Indian standards (BIS) as the **National Standards Body of India**.
- b) The Bureau to perform its functions through **a Governing Council**, which will consist of its President and other members.
- c) To include **goods, services and systems**, besides articles and processes under the standardization regime;
- d) To enable the Government to bring under the **mandatory certification regime** such article, process or service which it considers necessary from the point of view of health, safety, environment, prevention of deceptive practices, security etc. This will help consumers receive ISI certified products and will also help in prevention of import of sub-standard products;
- e) To allow multiple types of simplified conformity assessment schemes including **Self Declaration Of Conformity (SDOC)** against any standard which will give multiple simplified options to manufacturers to adhere to standards and get a certificate of conformity, thus improving the "ease of doing business";
- f) To enable the Central Government to appoint any authority, in addition to the Bureau of Indian Standards, to verify the conformity of products and services to a standard and issue certificate of conformity;
- g) To enable the Government to implement **mandatory hallmarking of precious metal articles**;
- h) To **strengthen penal provisions** for better and effective compliance and enable compounding of offences for violations;
- i) To provide recall, including product liability of products bearing the Standard Mark, but not conforming to relevant Indian Standards; and
- j) Repeal of the BIS Act, 1986.

BENEFITS OF NEW BILL

- The proposed provisions in the new Bureau of Indian Standards Bill, 2015 will empower the Central Government and the Bureau of Indian Standards to **promote a culture of quality of products and services** through mandatory/voluntary compliance with Indian standards through the process of 'product certification' and 'Certificate of Conformity' with a broad objective of consumer's welfare.
- It is also expected to **improve enforcement of Indian standards**.

Thus, the proposed provisions will also promote harmonious development of the activities of standardization, marking and quality certification of goods and services, to provide for compulsory hallmarking of precious metal

articles, widening the scope of conformity assessment, to enhance penalties, to make offences compoundable and to simplify certain provisions in the Act.

INCREASING PULSE PRODUCTION IN INDIA

- Pulses in India are grown on about 25 mha of land, largely rain-fed, with only 16 % under irrigation. Production hovers between 18-20 MMT. **Pulses need much less water and are nitrogen fixing, so they do not need much chemical fertiliser.** India produced 101 MMT of rice from about 43 mha, almost 60 % of which is irrigated. The key point in the case of rice is that **it needs high doses of water for irrigation, roughly 3,000-5,000 litres per kg of rice, depending on where it** is being grown. Further, 40-50 % of irrigation water goes back to groundwater with much higher nitrate content, polluting potable **water. This percolated water has to be lifted** time and again through highly subsidised power.

REASONS FOR PREFERENCE OF CEREAL OVER PULSES

- Farmers prefer to grow cereals over pulses because **pulses are among the least productive of all crops** — the yields are on average 760 kg per hectare, compared to 2,400 kg per hectare for cereals, and 1,100 kg per hectare for oilseeds. The reason behind this low yield in pulses — which has barely changed in more than three decades — is that:
 - Pulses are technology-proof crops. Despite years of trying, no amount of R&D has increased the yield of pulses significantly, unlike cereals which saw a huge increase in productivity due to technological advances.
 - The farmers are increasingly growing pulses on inferior land.
- Low yields on the one hand and relatively **more lucrative MSP for other food grains** makes pulses an unattractive crop for farmers to grow. Hence, a fifth of the country's supply of pulses is imported, as the 2014-15 data shows.
- Also, there is a **government system of procurement of paddy/ rice, which reduces risk for rice farmers**. Pulses, by contrast, neither have any such government system of procurement, nor benefit from large input subsidies. Most are banned/restricted from exports, and imports are allowed at zero duty, while rice imports attract 70 % duty. This seems to be a comedy of errors.

Policy Correction Needed So That Rice And Pulses Get Equal Treatment In Terms Of Incentives To Farmers

Government should devise a crop-neutral incentive structure to attract farmers to pulses over paddy.. To do this,

- First, the **rice import duty needs to be slashed to 5-10 %**, if not zero, so that the rice trade is truly open at both ends.
- Second, **direct buying of pulses from farmer groups needs to be encouraged** by private-sector organised industry/ retail groups, or by a wing within the FCI, and through warehouse receipt systems. Third, **although good technology will increase yields of pulses in due course, in the short to medium run, bringing more pulses' area under irrigation** can help stabilise their yields at a reasonably satisfactory level. For this to happen, policy must reward those ready to **shift to pulses, especially in the Punjab-Haryana belt, where the water** table is fast depleting.

SOCIAL ISSUES

IAP HEALTHPHONE PROGRAMME

- The **IAP HealthPhone Programme** has been launched by the *Indian Academy of Pediatrics (IAP)* in partnership with the *Ministry of Women and Child Development, UNICEF* and supported by *Vodafone India*.
- The IAP HealthPhone programme is the **world's largest digital mass education programme** for addressing the malnutrition in women and children.
- The IAP HealthPhone is a **public-partnership initiative** that leverages the **increasing penetration of mobile phones in the country to educate over 6 million girls and women between 13 and 35 years of age and their families on better health and nutrition practices by 2018**.
- The programme will achieve its objectives by widely promoting and distributing four re-edited videos from the **Poshan (nutritional videos) series**, jointly produced by MoWCD and UNICEF in 18 Indian languages. The Poshan videos address issues of status of women, the care of pregnant women and children under two, breastfeeding and the importance of balanced diet, health and simple changes in nutritional care practices that can notably enhance nutritional levels.

As next step, IAP HealthPhone partners will also equip ASHAs and ANMs with a **HealthPhone microSD card**, containing a library of videos, to enable them to share health and nutrition knowledge with women, families and the communities they serve.

JAL KRANTI ABHIYAN

- Union Minister of State for Water Resources and River Development launched the Jal Kranti Abhiyan 2015-2016. The Jal Kranti Abhiyan will be celebrated across the country during 2015-16 with an aim to consolidate water conservation and management using a **"holistic and integrated"** approach.
- The main thrust of Jal Kranti is **to recover receding underground water table, river-basin planning and irrigation water management, conservation and rejuvenation of traditional resources and save water**.
- The chief component under the campaign is the **Jal Gram Yojana**, whereby one village facing acute water scarcity would be selected from each of the 672 districts in the country. The scheme will identify and train a cadre of **local water professionals**, preferably women panchayat members, to be called **"Jal Mitra"** who will create mass awareness about water problems.
- The scheme also provides for a **"Sujalam Card"** which will provide annual status/information about the quality of **drinking** water available for a Jal Gram.

NEW ENTREPRENEURSHIP SCHEME: A BREAK FROM THE CURRENT SYSTEM

- While NSSO data reveals that over 5.77 crore people in the country were self-employed, a World Bank study on entrepreneurship revealed that the density of new business registration in India in



2012, which it considers as a key indicator of employment generation, was much lower than comparable economies such as Brazil and Malaysia.

- The above facts signify the importance of boosting employment opportunities in the country.
- The proposed scheme is expected to **integrate entrepreneurship education with formal education** as well as facilitate mentorship and incubator centres across the country to help foster entrepreneurs and boost opportunities for self-employment. ***This presents a significant break from the current system of entrepreneurship development, where it is considered to be a part of the skilling curricula.***
- The objective of both the skill policy as well as the entrepreneurship scheme is job creation so that the youth has some productive form of employment.

OTHER INITIATIVES TO BOOST ENTREPRENEURSHIP DEVELOPMENT

- The *government* plans to set up an incubator, accelerator and mentor network that would include technology business incubators at institutions such as the IIMs, IITs, Indian Institute of Science Education and Research and the National Science and Technology Entrepreneurship Development Board.
- Even schemes like the **MUDRA Bank** are aimed at fostering entrepreneurship in the country.
- Simultaneously, the government also plans to **remove entry and exit constraints** faced by entrepreneurs and improve ease of doing business through measures such as a **Single Unique Enterprise Identity Number** for various registrations including taxes and social security as well as an on-line **Single Composite Application Form (SCAF)** that will help entrepreneurs file a single application for obtaining all the approvals and clearances from various government authorities.

GOVERNMENT WITHDREW DELHI'S BID FOR HERITAGE TAG

- In 2012, the Culture Ministry has filed the nomination for a Heritage tag with UNESCO. But just a month before UNESCO was to review nominations from across the world, the government has withdrawn its bid. ***"Once the city comes into that heritage list, you are unable to make some construction in the city plans and land use plans, so it will become difficult," Culture Minister was quoted citing the reasons for such decision.***
- India is home to 32 of UNESCO's 1,000-odd World Heritage Sites, three of which are in Delhi: Red Fort, Qutub Minar and Humayun's Tomb. But, *none of the world's 220 World Heritage Cities is in India.*

Advantage With A Heritage City Tag

- The tag of a UNESCO World Heritage City will be **a powerful addition to a city's tourist branding**. Rome, Paris, Cairo and Edinburgh are good examples.
- A tourism boost is generally associated with **growth of employment in allied industries**.
- According to the UNESCO website, "a country may also **receive financial assistance and expert advice** from the World Heritage Committee to support activities for the preservation of its sites".

MAGGI ROW

WHAT IS THE CONTROVERSY AROUND MAGGI?

- A Gorakhpur lab tested for **monosodium glutamate (MSG)** to check Nestle's claim that Maggi had none. The test found MSG in Maggi and a complaint was lodged in Barabanki court.
- In addition, the Kolkata lab found "very high quantities" of **lead** — 17.2 parts per million.

WHAT RULES GOVERN "INSTANT NOODLES" (SUCH AS MAGGI) UNDER FSSAI?

- According to Food Safety and Standards Rules, 2011, MSG, a "**flavour enhancer**", should not be added to food for **infants below 12 months**. MSG is not permitted in over 50 items, including "Pastas and noodles (only dried products)", but is allowed in the seasoning used for noodles and pastas.

- Under Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011, permissible levels of lead range from 0.2 parts per million in infant milk substitute and infant foods to 10 ppm in categories like baking powder, tea, dehydrated onions, and spices flavourings. For instant noodles included in the “foods not specified category”, the *permitted level of lead is 2.5 ppm*.

WHY DO NOODLES HAVE MSG AND LEAD?

- *MSG stimulates the nervous system and makes food appear tastier.* It is widely used in “Indian Chinese” food. The US FDA says MSG is “generally recognized as safe”, the same as salt, pepper, vinegar and baking powder. Glutamate is *present in* many natural foods including tomato, mushroom, fungi and cheese.
- The lead may come from the raw materials — water or flavouring material — or packaging, or the curling agent.
- The Courts in Muzaffarpur and Barabanki has ordered FIRs against Madhuri,

Few Information On MSG For Prelims Purpose

- MSG, is a glutamate, or salt of glutamic acid, a “**non-essential**” **amino acid**, which means it is produced by the body, and thus not required in our diet. In its pure form, MSG is a white crystalline powder. Among different varieties of glutamate, sodium glutamate is the most soluble and the easiest to crystallize.
- MSG is a **naturally occurring salt** in tomatoes, Parmesan cheese, potatoes, mushrooms, soybeans and seaweed. But today, instead of extracting and crystallising MSG from seaweed broth or other natural foods, MSG is produced by fermentation of starch, sugar beets, sugar cane or molasses in laboratories.
- MSG is a **neurotransmitter** — transporting messages from one nerve cell to another. Because it is said to enhance flavours, some scientists believe it “excites nerve endings” and exhibits “neuro-excitatory properties”, that is the ability to stimulate neurons. In the few cases of excessive stimulation, this can result in killing or damaging of nerve cells. Which is why some people consider MSG to induce headaches at best and Alzheimers at worst.
- The FDA considers addition of MSG to foods to be “generally recognised as safe”. And yet, when MSG is added in foods, the FDA insists it be listed on the label. This is because over the years, specially since the 1960s, FDA has received many complaints of adverse reactions to foods containing MSG. These reactions — known as **MSG Symptom Complex, or Chinese Restaurant Syndrome** — include headaches, flushing, sweating, facial pressure, numbness, tingling or burning in the face/neck, heart palpitations, chest pain, nausea and weakness.
- In the 1990s, the FDA asked independent scientific group Federation of American Societies for Experimental Biology (FASEB) to examine the safety of MSG. The report concluded that MSG is safe. The FASEB identified some transient and mild symptoms, such as headache, numbness, flushing, tingling, palpitations, and drowsiness that may occur in some sensitive individuals who consume 3 grams or more of MSG without food. “However, a typical serving of a food with added MSG contains less than 0.5 grams of MSG. Consuming more than 3 grams of MSG without food at one time is unlikely,” says the FDA website.

HOUSING FOR ALL- FROM SLUMS TO NEIGHBOURHOODS APPROACH

There was a shortage of 18.78 million housing units in 2012. Over 95 % of this shortage was for low-income households that earn less than Rs. 2 lakh as total household income per year. Taking the Ministry of Housing and Urban Poverty Alleviation’s own formula — that a household can afford a house five times its annual income — **this means ‘Housing for All’ needs to make nearly 17 million houses, all under Rs.10 lakh.**

WHO SHOULD BUILD THIS HOUSING?

- Here three candidates emerge: government, private developers, & poor urban communities themselves.
- **The Government:** The government output has risen in the past two decades but remains woefully inadequate.
- **The Private Developers:** There has been an increase in the production of affordable housing by private developers in recent times, whether *unaided or through PPP* in exchange for incentives such as transfer development rights. However, market studies reveal that private developers cannot enter the market unaided for below Rs.5 lakh housing, and will require significant incentives to build units between Rs.5 lakh and Rs.10 lakh. Most of the market is in the Rs.10-20 lakh bracket. The more important obstacle for housing policy is that these scheme can work at scale only in large metro cities where market for tradable development rights exist. The majority of the shortage, however, lies outside these major metros.
- **Communities:** In Karnataka, people themselves have built, brick by brick, *nearly three times as many houses as the government has*, usually over 10-15 years and often on land they do not own but claim. They are affordable and accessible for the poor, but deeply inadequate materially and vulnerable to eviction.

CONCLUSION

- We thus reach the paradox of India's urban housing shortage: ***affordable housing when built at scale is done best by the people themselves, but is often inadequate and vulnerable, both materially and legally. And secure housing built by formal state and market actors is deeply insufficient in number, and almost entirely unaffordable for those who need it the most.***
- Recognizing this paradox, we must change the way we approach the idea of 'Housing for All'.
 - ***Private developers must be enabled as well as mandated to build houses below Rs.15 lakh***, but we must recognise that they cannot address the majority of the shortage in the category below Rs.5-10 lakh.
 - The ***government must continue to play a strong role in providing low income housing***, but recognise that it is unlikely that it will, even with the best of intentions, be able to scale its capacity to deliver enough units.
 - This leaves us with ***trusting the only actors that have so far performed at scale: the people***. If the inadequacy of these self-built, auto-constructed housing can be addressed, housing shortage can be dramatically reduced without building a single new unit. ***Upgrading existing but vulnerable and inadequate housing*** has a long history in global housing policy such as in *Thailand, Brazil and Egypt*.
 - Upgrading has several advantages. It is significantly cheaper than building new housing units. It changes the role of govt to one of simply providing settlement-level services such as internal roads, sanitation, and electricity, tasks it is mandated to do anyway. The multiplier effects of such upgradation for human development outcomes are enormous, and way over the economic gains of a city that reaches new households with networked infrastructure and services. Most of all, working with existing settlements means that no new land has to be found.

RECOGNITION OF PRIOR LEARNING (RPL) SCHEME

- Across construction sites dotting five states — Haryana, Telangana, Odisha, Chhattisgarh and Delhi — a novel scheme is underway ***to certify the skills acquired by workers in the unorganised sectors through traditional, non-formal learning channels***. Under RPL, a target to certify an estimated **10 lakh workers** has been set.

- The project may be of particular relevance to a country where **just 2 % of the workforce is certified as skilled**, as against skilled workforce levels of **96 % in South Korea, 80 % in Japan, 75 % in Germany and 70 % in Britain**.
- While the official estimate of the percentage of skilled workers in the overall workforce is around 2 %, there are lakhs of people who are illiterate or semi-literate but are adept the art of craftsmanship or skilling for generations like Varanasi or Kancheepuram weavers, gold and jewellery workers of Jaipur, diamond workers of Surat and many more. These people are skilled and working, they need to be certified.
- the Ministry of Labour & Employment and the Ministry of Skill Development are hoping to expand the programme to other states and enlarge its scope to include sectors other than construction.
- The poor skill level among India's workforce is attributed to the **dearth of formal vocational educational framework and lack of industry-ready skills**. Two stand-out things about the scheme are the attempt to
 - Involve **the industry in firming up the checklist of competencies for various trades, and**
 - Trying to standardise skill levels across a particular sector by empanelling independent trainers for the skill assessment and training.
- However, according to experts, the biggest problem in successful implementation of the scheme is that there are **no common yardsticks for measuring work-related competencies across various mechanisms of learning skills**.
- The groundwork to create common standards incorporating the industries-level requirements for different kinds of job roles, and aligning the vocational training schemes with these standards was initiated by the previous UPA government, which had notified the **National Skills Qualifications Framework (NSQF)** in December 2013. It was designed to enable the learner to acquire skills required by the **National Occupational Standards (NOS)** to be able to perform a particular job role and organise them as a series of qualifications across 10 levels-from level 1 to 10.

INCREASING NUMBER OF DAYS WORK UNDER MGNREGS

- The *rural development ministry*, which oversees the MGNREGA, has moved a Cabinet note to increase the number of promised work-days under the scheme to **150 days** in areas declared to be drought-affected by the respective state governments.
- The spectre of drought has led to a perceptible change, with the government coming to **realise MGNREGA's value in mitigating distress situations and providing a basic minimum level of sustenance to the rural poor**.
- This fact was also acknowledged in a recent observation by the *World Bank* on **MGNREGS as an effective substitute for lack of crop and weather insurance in India**.
- The new government has also launched steps to improve the scheme's implementation through:
 - More **regular monitoring and scientific planning** of works.
 - Correcting MGNREGA's biggest weakness — **poor quality of assets** — by introducing systems for measuring outcomes of works based on defined physical and financial parameters.
 - **Addressing the problem of delays in wage payments** via mobile monitoring systems and SMS alerts to defaulting field personnel.

INDIA'S GREATEST ARCHITECT CHARLES CORREA

- With the passing away of Charles Correa, often called "India's greatest architect", the country has lost a genius of urban planning.
- He was the chief architect of **Navi Mumbai**, considered among the largest urban spaces in the world housing over two million people.
- He pioneered some unique concepts in **urban development and affordable housing** that, if adopted widely, could change the landscape of the poorest townships of not just India but much of the Third World.
- It was Mr. Correa who founded the **Urban Design Research Institute** in Bombay in 1984.
- In India, Mr. Correa is famous for the **Gandhi Smarak in Ahmedabad, Kala Kendra (Goa), National Crafts Museum (New Delhi), Bharat Bhavan (Bhopal), and Jawahar Kala Kendra (Jaipur)**.
- He is the recipient of **Padmashri (1972) and Padma Vibushan (2006)**.

UPSC 2012

Why is Laurie Baker called 'the conscience keeper of Indian architecture'?

REGULATION OF ONLINE SALE OF MEDICINE

- Selling medicines online is prevalent in developed markets and its mushrooming in India is a consequence of the booming e-commerce segment in India. But, clearly selling over-the-counter (OTC) medicines online, which is permissible, is quite different from selling prescription drugs online where the attendant dangers of abuse are high. These dangers are:
 - A prescription issued by a doctor cannot be re-used randomly. There is a danger that scheduled drugs can be **re-ordered and misused by the consumer**.
 - **Self-medication** is a rampant practice in India, and online sale of drugs would only encourage it.
 - Indiscriminate use leads to **patient resistance** which is very dangerous as has been the case with tuberculosis drugs.
- There has been a call for regulation because the existing Drugs and Cosmetics Act does not have any guidelines in place for e-commerce players in the pharmaceutical industry. However, it is very clear that 'scheduled' drugs should be sold only by **licensed pharmacies against a doctor's prescription**.
- It becomes even more critical to have a framework in place when the *intermediary is selling drugs* where the safety and health of the consumer is of paramount importance."
- Those supporting the online sale say that the interest of small retailers would be protected and existing supply chains would not be adversely impacted by e-pharmacies, adding that the aim is to integrate e-pharmacy into the existing system.

SOCIO ECONOMIC CASTE CENSUS 2011

- The SECC 2011 is the first census, since 1931, that takes into account the caste.
- For data on rural households, the census was distributed across **three categories**: *those that have to be compulsorily excluded; those that have to be compulsorily included; and those that fall in-between – they were then ranked based on seven deprivation criteria*.
 - Those that were **automatically included** were households without shelter, destitute living on alms, manual scavengers, primitive tribal groups and legally released bonded labourers. This figure has been pegged at less than 1 %.
 - The **automatically excluded category** included households with any of the following: motorised vehicles, mechanised agricultural equipment, Kisan credit card with credit limit of Rs 50,000 and

above. They also included households with any member as a government employee, with non-agricultural enterprises registered with the government, any family member earning more than Rs 10,000 a month, those paying income/professional tax, living in houses with three or more rooms with all having pucca walls and roof, owning a refrigerator, landline phone, possessing irrigated land, etc.

- The SECC covered 24.39 crore households nationally, out of which 6.48 crore households were automatically excluded. Thus, only 17.91 crore rural households were surveyed.

SEVEN SOCIO-ECONOMIC PARAMETERS TO ESTIMATE DEPRIVATION

Nearly 19 % of India's rural population in 2011 lacked at least one of seven socio-economic parameters used to estimate deprivation. The SECC measures deprivation along seven criteria —

- I. Households with only one room with no solid walls and roof,
- II. Those with no adult member aged 15-59,
- III. Female-headed households with no adult male aged 15-59,
- IV. Those with differently abled members and no able-bodied member,
- V. SC/ST households,
- VI. Those with no literate member above the age of 25, and
- VII. Landless households deriving a major portion of their income from manual casual labour.

FINDINGS OF REPORT

• Demography:

- SC/ST Population: Of the rural households covered, 21.53 % belonged to scheduled castes and tribes.
- Women: A little more than 48 % of the Indian rural population is female.
- Transgender: Marking the first all-India Census to be released since the apex court recognised transgenders as the third gender in 2014, the SECC found that transgenders comprise 0.1 % of India's rural population. Andaman & Nicobar islands, West Bengal, Gujarat, Odisha and Mizoram have the highest proportions of transgenders.

• Income And Employment:

- Nearly one in every three rural households still have an uncertain source of income and continue to live in one-room kutcha houses. These households — 31.26 % of the 17.91 crore rural households covered by the census — will now be considered as 'poor', and eligible for benefits applicable to BPL families.
- There are 35 lakh households with no income, 1 lakh households which survive on begging and 43,000 households that work as rag pickers.
- 30 % of rural households are landless and derive a major part of their income from manual, casual labour. Fewer than 10 % have salaried jobs
- In terms of state-wise data for households whose main earner's income is less than Rs 5,000 a month and live in one-room kutcha houses, **Madhya Pradesh has emerged the poorest** with 24 % of rural households identified as "poor", followed by Chhattisgarh at 21 % and Bihar at 19 %.

FIRST SOCIO-ECONOMIC CASTE CENSUS

1791 crore Rural households surveyed	no adult member aged between 16 and 59
31.26% Percentage of rural poor	0.4% Households with no able-bodied adult member
13.25% Households with only a room, kutcha walls and kutcha roof	21.53% SC/ST households
3.64% Households with no adult member aged between 16 and 59	23.52% Households with no literate adult aged above 25
3.85% Households headed by a woman with	29.97% Landless households with income coming from manual/casual labour

- **Literacy:**

- 36 % of the 884 million people in rural India are illiterate. This is higher than the 32 % recorded by the Census 2011.
- Of the 64 % literate rural Indians, *a more than a fifth have not even completed primary school*. Only 5.4 % of rural India has completed high school with a mere 3.4 % having graduated from college.
- 23.5 % of rural households had no adults above the age of 25 who are literate.

- **Basic Amenities**

- 50 lakh households have drinking water away from the premises.
- 20 lakh households have no electricity supply and no water sealed toilets (where water acts as a barrier between the toilet seat and the sewers).
- Nearly 28 % of rural households in India still do not have access to a phone-landline or mobile.
- Just 20 % own a vehicle.
- Just 10 % own a refrigerator.
- Only 20.6 % of households own “motorised two/three/four-wheelers.”

- **Miscellaneous**

- 41.6 % of rural Indians were unmarried, 40 % are currently married and 3.5 % are divorced. Puducherry and Kerala have the highest proportion of widows, at 6 % and 5.5 % respectively.
- The average household in rural India has *close to five members*, and only 12.8 % of them are headed by women. Lakshadweep bucks this trend, with over 40 % of its rural households headed by women.
- Only 3.62 % of rural households across the country have a Kisan Credit Card with a credit limit of Rs. 50,000 or more. Fewer than 5 % own agricultural equipment

CONCLUSION

- The extent of and approach to deprivation captured by the SECC 2011 ***contrasts with the poverty estimates of the erstwhile Planning Commission***, which were ***income-based***. As per the Commission’s last estimate, in 2011-12, 25.7 % of India’s rural population was below the poverty line ie. with an income below Rs. 816 per capita per month.
- The findings of the census are similar to that of the ***Rangarajan committee*** The panel had found that the percentage of people below the poverty line in 2011-12 was 30.95 % in rural areas and 26.4 % in urban areas. The Rangarajan report stated that those spending less than Rs 32 per day in rural areas would be considered poor.
- The findings would form the basis for States and the Centre to take policy decisions on schemes and programmes. It provides a basis for helping to target groups for support and for policy planning.

SECURITY

MILITANT AMBUSH IN MANIPUR

Causalities: 20 soldiers were killed and over a dozen injured

Attacking group: The newly-floated common platform of United Liberation Front of Western South East Asia - which includes NSCN (K), Ulfa(I), Kamatapur Liberation Organization and NDFB (Songbijit) -claimed responsibility for the attack.

INS TEG IN SEYCHELLES FOR SURVEILLANCE

- This is in keeping with India's national objective of ensuring a secure and stable regional environment to allow unhindered economic and social development, not just in India, but also in the entire Indian Ocean Region.
- India has also provided a Fast Attack Craft and Dornier aircraft to Seychelles as part of its capability development programme.



PURPOSE

- To provide surveillance support in the region.
- To deepen maritime security cooperation with Indian Ocean littoral nations.

AUTOMATIC IDENTIFICATION SYSTEM (PROPRIETARY) TRANSPONDERS

- The project — Automatic Identification System (proprietary) Transponders — will track small fishing vessels (below 20 metre) and up to a distance of 50 kms from the coastline.
- The project will be implemented by the Department of Animal Husbandry, Dairying and Fisheries under the Agriculture Ministry.
- At present, there is a system in place for tracking vessels above 20-m in length, but there is no such facility for boats below that length.
- Need:
 - India's long coastline poses a variety of security concerns that include landing of arms and explosives at isolated spots on the coast, infiltration/exfiltration of anti-national elements, use of sea and offshore islands for criminal activities and smuggling of consumer and intermediate goods through sea routes
 - The absence of physical barriers on the coast and presence of vital industrial and defence installations in such zones further enhances the vulnerability of these areas.
- Earlier this year, the Indian Coast Guard had blown up a boat off Porbandar coast on suspicion that terrorists were on board.

SATELLITE COMMUNICATION GATEWAY

BACKGROUND

The New Telecom Policy'99 envisages introduction of Global Mobile Personal Communication by Satellite (GMPCS) Service in India. With GMPCS Service a subscriber can communicate from any point on earth through hand-held terminal. The subscriber will have one telephone number irrespective of his location. The mobile satellite networks can operate with satellites either in Low Earth Orbit (LEO) upto 1000 KMs, Medium Earth Orbit (MEO) upto 10,000 KMs or Geo Stationary Earth Orbit (GEO) at 36,000 KMs. from the surface of the earth. These systems are designed to support variety of telecommunications services like voice, data, fax, messaging etc. having global reach with the help of a network of Gateway Earth Stations which provide connectivity towards satellite as well as PSTN. With GMPCS easy, flexible and convenient communication will be possible with more economical use of radio frequency spectrum.

- **Current Status**

- In the absence of a gateway in India, law enforcement agencies are not able to monitor calls made from or to the satellite phones being used in India which, according to DoT officials, pose a national security threat.
- The country is also dependent on foreign gateways for satellite communication services required by security forces and others at the time of disaster response, especially when normal communication systems break down.
- An estimated 1,532 authorised satellite phone connections are operating within country, a majority of them being used by security forces.

The Plan

- Department of Telecommunications (DoT) is providing funds to state-owned BSNL for the establishment of a satellite communication gateway in India.
- **Benefits:**
 - will bring down the tariff sufficiently
 - Satellite phones will have much more secure connections within the country.

SCIENCE AND TECHNOLOGY

INDIA TO TEST REUSABLE LAUNCH VEHICLE IN JULY: ISRO

- This launch vehicle (1.5 tonne) will be mounted on the Polar Satellite Launch Vehicle (PSLV) rocket.
- At an altitude of 70 km, the model would get separated and would glide back to earth.
- The descent speed would be controlled through the fins on the machine.
- Last December, ISRO sent up a 3.7 tonne giant module-called Crew Module Atmospheric Re-entry Experiment- to study its re-entry characteristics, aero-braking and validation of its end-to-end parachute system.
- It will bring down costs significantly of launching satellites. It will reduce the cost by one-tenth.



SAKAAR

Sakaar is Indian Space Research Organisation's (ISRO) Augmented Reality (AR) application designed for Android devices.

- It consists of 3D models of MOM, RISAT, rockets (PSLV, GSLV Mk-III); videos of INSAT 3D-predicting cyclones, GSLV D5/Cryo, Mars Orbiter Mission (MOM) orbit insertion, launch video of MOM, 360 degree animated view of MOM; Anaglyph of Mars surface.

AUGMENTED REALITY TECHNOLOGY

- Augmented Reality is a live direct view of a physical, real-world environment whose elements are augmented (or supplemented) by computer-generated 3D models, animations, videos etc.
- It enhances user's current perception of reality.
- The AR requires three elements - Android device with back camera, AR application and AR markers.

UPSC 1996

What is virtual reality? What is it used for?

WORLD'S THINNEST LIGHT BULB CREATED

Researchers have created the world's thinnest light bulb using graphene (an atomically thin and perfectly crystalline form of carbon) as a filament (In incandescent light bulb tungsten used as filament).

FEATURES AND APPLICATIONS

- After current is passed through filament it heats up to over 2,500° C and produces exceptionally bright light.
- This graphene light is low cost with a relatively simple structure.
- Can also be integrated into chips which will pave the way towards the realisation of atomically flexible, thin and transparent displays.
- Can be used as broadband light emitter
- The ability for the super-thin material to produce light is seen as a key step to create super-thin computer and TV screens.

GRAPHENE

- Graphene is composed of carbon atoms linked in a hexagonal lattice.
- About 200 times stronger than steel
- Better conductor compared to Copper
- Nearly transparent.

UPSC 2012

Graphene is frequently in news recently. What is its importance?

1. It is a two-dimensional material and has good electrical conductivity.
2. It is one of the thinnest but strongest materials tested so far.
3. It is entirely made of silicon and has high optical transparency.
4. It can be used as 'conducting electrodes' required for touch screens, LCDs and organic LEDs.

Which of the statements given above are correct?

- (a) 1 and 2 only
(b) 3 and 4 only
(c) 1, 2 and 4 only
(d) 1, 2, 3 and 4

CABINET-APPROVED PROJECT FOR GENERATING 2,000 MW GRID-CONNECTED PV SOLAR POWER

- The Cabinet Committee on Economic Affairs has approved plans to generate 2,000 MW of grid-connected PV solar power on a Build-Own-Operate basis by solar power developers under the second phase of the Jawaharlal Nehru National Solar Mission.

Impacts

- Will reduce about 3.41 million tonnes of carbon dioxide emission a year.
- Generate jobs for 12,000 people in rural and urban areas.

UPSC 2014

With reference to technology for solar power production, consider the following statements:

- 'Photovoltaics' is a technology that generates electricity by direct conversion of light into electricity, while 'Solar Thermal' is a technology that utilizes the Sun's rays to generate heat which is further used in electricity generation process.
- Photovoltaics-generates Alternating Current (AC), while Solar Thermal generates Direct Current (DC).
- India has manufacturing base for Solar Thermal technology, but not for photovoltaics.

Select the correct answer using the code given below.

- (a) 1 only
- (b) 2 and 3 only
- (c) 1, 2 and 3 only
- (d) None of the above

GOVERNMENT'S ANNUAL REPORT ON PATENTS IN INDIA

- Report making agency: Office of the Controller-General of Patents, Designs and Trademarks.
- Patent filings from various entities in Karnataka have shot up by 40 per cent in a year, pushing the State to the second spot nationally.
- Across India, the five patent offices received 42,674 applications that year.
- 4,227 patents were granted, barely 43 per cent were examined or disposed of.
- The Indian Space Research Organisation (12), the Indian Institute of Science (32) and Siddaganga Institute of Technology, Tumakuru, (24) figure among the top-10 scientific bodies and institutions.

INNOVATION HUBS

The top five filers

Maharashtra: **2,892**

Karnataka: **1,639**

Tamil Nadu: **1,436**

Delhi: **1,009**

Andhra Pradesh: **879**

UPSC Mains 2012

What do you understand by the term "Innovation"? Discuss the need for launching a national innovation policy in India.

INTERNATIONAL SPACE STATION (ISS)

- The **International Space Station (ISS)** is a space station, or a habitable artificial satellite, in low Earth orbit.
- ISS is now the largest artificial body in orbit and can often be seen with the naked eye from Earth.
- The station is suited for the testing of spacecraft systems and equipment required for missions to the Moon and Mars.
- The ISS serves as a space environment research laboratory in which crew members conduct experiments in biology, human biology, physics, astronomy, meteorology and other fields.

Why in News: US SpaceX's rocket with a Dragon cargo ship carrying supplies to the International Space Station (ISS) exploded three minutes after it had been launched.

PHILAE

What is Philae: It is a robotic European Space Agency lander that accompanied the Rosetta spacecraft until it landed on comet 67P/Churyumov–Gerasimenko, more than ten years after departing Earth. On 12 November 2014, the probe achieved the first-ever soft landing on a comet nucleus.

Why in News: On 15 November 2014, Philae entered safe mode, or hibernation, after its batteries ran down due to reduced sunlight and an off-nominal spacecraft orientation at its unplanned landing site. Mission controllers hoped that additional sunlight on the solar panels by August 2015 might be sufficient to reboot the lander. On 13 June 2015, Philae began communicating with Rosetta again.

What is Rosetta: Mothership (spacecraft) orbiting Comet 67P. Philae communicates with Rosetta which sends the received data to the earth.

GOALS OF THE MISSION

- To focus on **elemental, isotopic, molecular and mineralogical composition** of the cometary material
- The characterization of physical properties of the surface and subsurface material
- The large-scale structure and the **magnetic and plasma environment** of the nucleus
- The mission seeks to unlock the long-held secrets of comets — **primordial clusters of ice and dust** that scientists believe may reveal how the Solar System was formed.

KHOYA-PAYA WEB PORTAL TO TRACK MISSING CHILDREN LAUNCHED



'Khoya-Paya', is a web portal for citizens to report children sighted as abandoned, lost or with suspicious person. It has been developed by the Ministry of Women and Child Development and the Department of Electronics and Information Technology (DeitY).

Features

- Any parent whose child is missing can update information on this portal which will be shared with the cops and authorities in real time.
- Anyone in the country can also update information on any missing children they are aware of.
- The reporting can be done through text, photographs, videos and other means of transmitting and uploading information
- The website is not a substitute for registering First Information Report (FIR) or police action.

Statistics of missing children in India

- There are approximately 70,000 children who are reported missing every year.
- The total number of recovered children from January 2012 and April 2015 is 23,597.
- Jharkhand tops the list of states which see cases of missing children and those of child trafficking.
- These children mostly end up working as child labour in big cities or are thrown into sex trade.

Criticisms:

- In most of the cases of missing children, the families of such children are extremely poor, illiterate and can't even afford three meals a day.
- Using the Internet is out of the question for them.
- The people who can help them, on the ground and with this website, are either NGOs which are already overburdened, or cops who are mostly indifferent.

CSIR SUCCEEDS IN WHOLE GENOME SEQUENCING OF HOLY BASIL (TULSI)

CSIR-Central Institute of Medicinal & Aromatic Plants (CSIR-CIMAP), has published whole genome sequence of Tulsi.

Other names: Ocimum sanctum, the wonder plant 'Holy basil'

SIGNIFICANCE OF TULSI

- Worshipped for over more than 3000 years through the sacred traditions of Hindu culture
- **Medical benefits**
 - It is used in several systems of traditional medicine, including Ayurveda, Greek, Roman, Siddha, and Unani.
 - It is used in the preparations to cure various diseases like bronchitis, bronchial asthma, malaria, diarrhea, dysentery, skin diseases, arthritis, painful eye diseases, chronic fever, insect bite.
 - It has also been described to possess anti-fertility, anti-cancer, anti-diabetic, anti-fungal, anti-microbial, hepatoprotective, cardioprotective, anti-emetic, anti-spasmodic, analgesic, adaptogenic and diaphoretic actions.

SIGNIFICANCE OF WHOLE GENOME SEQUENCING

- It is first step to understand and unravel the secrets of this mother of all herbs.
- It will help in providing scientific validity to the traditional claims of its utility in diverse medicinal usage.

- This will also facilitate identification of not yet identified genes involved in the synthesis of important secondary metabolites in this plant.
- The development of molecular tools and genomic resources will accelerate molecular breeding and ultimately the utility of Holy basil in medical community.

UPSC 2014

With reference to Neem tree, consider the following statements:

1. Neem oil can be used as a pesticide to control the proliferation of some species of insects and mites.
2. Neem seeds are used in the manufacture of biofuels and hospital detergents.
3. Neem oil has applications in pharmaceutical industry.

Select the correct answer using the code given below.

- (a) 1 and 2 only
- (b) 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3 only

LARGE HADRON COLLIDER RESTARTS EXPERIMENTS AFTER TWO-YEAR UPGRADE

- CERN, the European Organisation for Nuclear Research, reported that particle beams were successfully pushed around the LHC in both directions after a two-year shutdown.
- During the first run of the LHC, the ATLAS and CMS experiments announced the discovery of the so-called Higgs boson.
- The huge collider, **which has undergone more than two years of upgrades**, to give it double the power, will now run non-stop for the next three years.

BENEFITS OF EXTRA ENERGY

- May reveal particles that have never been seen before.
- Will help in getting more information about dark matter.
- Researchers will look for evidence of “new physics” and probe “supersymmetry” — a theoretical concept informally dubbed **Susy**; seek explanations for enigmatic dark matter and look for signs of extra dimensions.

WHAT IS DARK MATTER?

- **Dark matter** is a hypothetical kind of **matter** that cannot be seen with telescopes but would account for most of the **matter** in the universe. The existence and properties of **dark matter** are inferred from its gravitational effects on visible **matter**, radiation, and the large-scale structure of the universe.
- Dark energy plus dark matter constitute 95.1% of the total mass–energy content of the universe
- Dark matter cannot be seen but its huge impact can be viewed through telescopes because it bends light around galaxies creating a ring of star light known as gravitational lensing.

PARTHENOGENESIS/ VIRGIN BIRTH

It is the first time this phenomenon has been seen in a vertebrate in the wild. There have been a number of cases in reptiles, birds and sharks of 'virgin birth' in captivity.

- It is reproduction without mating.
- **Process:**
 - In this a female's egg cell can develop into a baby without being fertilized by a male's sperm cell.
 - In making an egg cell, a precursor cell divides into four cells.
 - The one that eventually becomes the egg cell retains key cellular structures and the gel-like cytoplasm.
 - The other three hold extra genetic material. One of these cells essentially acts as a sperm cell and fuses with the egg.
 - This "fertilized" egg possesses about half the mother's genetic diversity, a trait allowing parthenogenesis to be detected through genetic testing.

Why in News: Scientists have documented in Florida a series of "virgin births," reproduction without mating, in a **critically endangered** sawfish species pushed to the brink of extinction by over-fishing and habitat destruction. It marks the first time the phenomenon called parthenogenesis has been seen in a vertebrate in the wild.

Reason of Virgin Birth in Smalltooth Sawfish: Smalltooth sawfish numbers are so low that mating opportunities may not exist.

SMALLTOOTH SAWFISH

- Also known as the **wide sawfish**
- It is found in shallow tropical and subtropical waters in coastal parts of the Atlantic, including the Mediterranean.

INS VIKRANT

- The maiden indigenous aircraft carrier INS Vikrant was undocked on completion of structural work.
- Largest aircraft carrier after induction
- The successful completion puts India in the elite group of four nations - the US, Russia, the UK and France - in the world capable of designing and constructing aircraft carriers.

INS Vikrant FACTS & FIGURES

BASIC DATA

LENGTH 262 metres
MAXIMUM BREADTH 62 metres
DISPLACEMENT 40,000 tonnes
SPEED In excess of 28 knots
FLIGHT DECK 2 runways for take-off
PROPULSION 2 shafts, each coupled to 2 LM 2,500 gas turbines generating 80 MW

● Early air warning radar and W/UHF tactical air navigational and direction finding systems, besides carrier control approach radar to aid air ops

● State-of-the-art Integrated Platform Management System supplied by BHEL



● **STOBAR*** aircraft launch and recovery system
 ● Capable of operating 24 MiG 29K and LCA (Navy) fighter aircraft, besides 6 assorted helicopters

Cabling About **2,700 km**
 Complement **1,600 personnel**
 Compartments **2,300**
 Decks **10 decks plus 5 levels** in the island structure
 Weight at the time of undocking **26,000 tonnes**

TO BE ARMED WITH

● Long Range Surface to Air Missile with Multifunction Radar
 ● Close-In Weapon System for terminal air defence (All weapons to be integrated using an indigenous Combat Management System)

* Short Take-off But Arrested Recovery

TIMELINE

Designed by Directorate of Naval Design

Construction sanctioned January 2003

Keel laid

February 28, 2009

Launched August 12, 2013

Undocking June 10, 2015

Basin trials 2017

Delivery 2018 likely



INS Vikrant, undocked on completion of structural work at Cochin Shipyard on Wednesday.

ECOLOGY AND ENVIRONMENT



DANDELI ELEPHANT RESERVE

- Karnataka, which boasts of the highest number of elephants in India has got a second elephant reserve the Dandeli Elephant Reserve under Project Elephant.

Project Elephant was launched in 1992 as a Central-sponsored scheme to protect elephant habitats, including its corridors, and resolve human-elephant conflicts rampant in many States. Karnataka was one of the States included in the project in view of the high density of elephants.

MAMMALIAN FAUNA OF INDIA

- India is home to **428 species** of mammals out of which more than 60 per cent — about 251 species — are under protected or Scheduled categories of the Indian Wildlife (Protection) Act, 1972.
- India contribute to about **8 per cent** of the total mammal species found in the World.
- About 50 per cent of mammalian fauna of India have shrunk in their distributional range due to various anthropogenic pressures.
- **Extinct mammals:** Cheetah, Banteng, Sumatran Rhinoceros and Javan Rhinoceros

	
Cheetah	Banteng

- **Critically Endangered:** pygmy hog, Malabar civet, large rock rat and kondana rat etc
- **Endangered:** Chinese Pangolin, fishing cat, Gangetic dolphin, golden langur, hispid hare etc.
- 180 fall under the “lesser-known” category, and very little information is available about their habitat, behaviour, and population.
- **Why in News:** Zoological Survey of India (ZSI) recently published a book containing a consolidated documentation and listing of all the scheduled or protected species of mammals found in India.

WORLD ENVIRONMENT DAY

- **World Environment Day (WED)** is celebrated every year on 5 June to raise global awareness to take positive environmental action to protect nature and the planet Earth.
- It is run by the United Nations Environment Programme (UNEP).
- The theme for 2015 is 'Seven Billion Dreams; One Planet; Consume with Care'.

UpSC 2014

Consider the following statements regarding 'Earth Hour':

1. It is an initiative of UNEP and UNESCO.
2. It is a movement in which the participants switch off the lights for one hour on a certain day every year.
3. It is a movement to raise the awareness about the climate change and the need to save the planet.

Select the correct answer using the code given below.

- (a) 1 and 3 only
(b) 2 only
(c) 2 and 3 only
(d) 1, 2 and 3 only

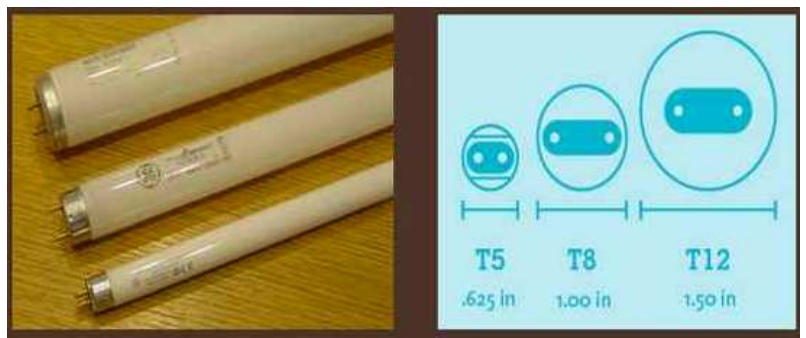
KONKAN RAILWAYS ENVIRONMENT FRIENDLY INITIATIVE

- Konkan Railway Corporation Ltd. (KRCL) has replaced power-guzzling high pressure sodium vapour (HPSV) lamps (70 watts) in its railway tunnels with light emitting diode (LED) lamps (24 watts).
- Each 24 Watt LED bulb would consume just one-third of the energy used by 70 Watt HPSV bulbs.
- More small initiatives has been taken by KRCL like phasing out all incandescent bulbs from railway premises and replacing them with more energy-efficient T5 fittings, and changing all resistance-type fan regulators to electronic ones.
- Konkan Railway has switched over to green energy with the installation of solar plants at Ratnagiri and Karmali stations and installing solar geysers at all its running rooms and rest houses.
- It has also taken up planting saplings in a big way on an annual basis along the entire rail route which has given it a unique identification as "Garden Railway".

A sodium-vapor lamp is a gas-discharge lamp that uses sodium in an excited state to produce light. There are two varieties of such lamps: low pressure and high pressure. Low-pressure sodium lamps are highly efficient electrical light sources, but their yellow light restricts applications to outdoor lighting such as street lamps. High-pressure sodium lamps have a broader spectrum of light than the low-pressure lamps, but still poorer color rendering than other types of lamps. Low-pressure sodium lamps only give monochromatic yellow light and so inhibit color vision at night.

WHAT IS A T5 TUBELIGHT?

T12, T8 and T5 are naming convention for tubelights where "12" is the thickest and "5" is the slimmest tubelight. T12s were quite popular in the past (some 10-15 years back). They were replaced with slimmer T8 version, which are the most popular and easily available version today. But T5 is the most efficient (energy saving) option that is available in the market today. It is approximately as thick as a thumb. As this is a relatively new technology, you may find it difficult to get them in the market.



UPSC 2011

What is the difference between a CFL and an LED lamp?

1. To produce light, a CFL uses mercury vapour and phosphor while an LED lamp uses semi-conductor material.
2. The average life span of a CFL is much longer than that of an LED lamp.
3. A CFL is less energy-efficient as compared to an LED lamp. Which of the statements given above is/are correct?

- (a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

SONGBIRD TURNS VICTIM OF HUNTING

- Recent studies by the U.K.'s **BirdLife International** and its India partner, Bombay Natural History Society (BNHS) India, have shown that one of **Eurasia's most abundant bird species**, yellow-breasted bunting, has declined by 90%.
- A research paper recently published in the journal Conservation Biology suggests that unsustainable rates of **hunting, principally in China**, have contributed to the catastrophic loss of numbers.
- Yellow-breasted bunting was once distributed over vast areas of Europe and Asia. In India, it is reported as a **winter visitor**, mainly in the north-east, in West Bengal, and also in the Terai region of Uttar Pradesh and Bihar. Here it is found from early October till April, in small to large flocks of up to 200.

BirdLife international is a global partnership of conservation organisations that strives to conserve birds, their habitats and global biodiversity, working with people towards sustainability in the use of natural resources. It is the World's largest partnership of conservation organisations, with over 120 partner organizations.



The Bombay Natural History Society, founded on 15 September 1883, is one of the largest non-governmental organisations in India engaged in conservation and biodiversity research.

ANIMALS VERMIN

Increasing man-animals conflict that causes damage to crops and other human property has led the Union ministry of environment, forest and climate change (MoEFCC) to ask states to send proposals to declare wild animals vermin for specified period in a given area.

LEGAL PROVISIONS

- Once declared vermin, that particular species can be hunted or culled without restriction.
- If implemented, it will apply to wild animals listed in various Schedules of the Wildlife Protection Act (WPA) 1972, other than Schedule I & Part II of Schedule II that lists most endangered and iconic species like tigers, leopards, and elephants.

- The new advisory will apply to not only nilgais and wild boars that destroy crops but also to animals like wild dogs, chitals, sambars, langurs, and many species of birds that damage crops.
- There are already legal provisions for objective management of man-animal conflict. Section 11(1) of the WPA authorizes chief wildlife warden to permit hunting of any problem wild animal only if it cannot be captured, tranquillized or translocated.
- Besides, for wild animals in Schedule II, III or IV, chief wildlife warden or authorized officers can permit their hunting in a specified area if they have become dangerous to humans or property (including standing crops on any land).

CRITICISMS

- Officials and environmentalists also fear protected species could be hunted in the name of eliminating vermin.
- They pointed out it was not easy for field staff to differentiate meat of chital from nilgai's or wild boar.

CYCLONE ASHOBAA

Origin: East- Central Arabian Sea

The storm continued to track northwestwards for a while, before turning westwards (towards Oman) and weakening due to moderate to high wind shear and land interaction. Thus, it hasn't affected Gujarat much.

IMPACTS

- Torrential rains and flooding in Oman and United Arab Emirates.
- Due to most of the moisture being drawn into the storm, the onset of the southwest monsoon over the Indian subcontinent was stalled.

MAHARASHTRA DECLARED BLUE MORMON AS STATE BUTTERFLY

- Maharashtra has become the first State in the country to have a 'State butterfly.'
- The Blue Mormon is a large, swallowtail butterfly found primarily in Sri Lanka and India, mainly restricted to the Western Ghats of Maharashtra, South India and coastal belts. It may occasionally be spotted in the Maharashtrian mainland between Vidarbha and Western Maharashtra.
- It is reportedly the second largest butterfly found in India, just smaller than the southern birdwing.
- Not uncommon. Not thought to be threatened. Occurs throughout the year but more common in the monsoon and immediately after it.

ARUNACHAL PRADESH'S STATE SOIL HEALTH MISSION

AIM

- The programme aims at proper documentation of soil health and preparation of soil map.
- To make Arunachal Pradesh a hundred per cent organic state.

MORE

- It also includes distribution of Soil Health Cards to farmers so that they are guided for scientific nutrient managements.
- The programme shall also check overuse of fertilizers and its adverse effect.

Soil Health Card Scheme

- **Soil Health Card Scheme** is a scheme launched by the Government of India in 2015.
- Under the scheme the government plans to issue Soil card to farmers which will carry crop-wise recommendations of nutrients and fertilizers required for the individual farms to help farmers to improve productivity through judicious use of inputs. All soil samples are be tested in various soil testing labs across the country. Thereafter the experts will analyze the strength and weaknesses (micro-nutrients deficiency) of the soil and suggest measures to deal with it. The result and suggestion will be displayed in the cards. The Government plans to issue the cards to 14 crore farmers.

ECONOMY

RBI ALLOWS NRIS TO INVEST IN CHIT FUNDS

INTRODUCTION

- The Reserve Bank of India (RBI) has decided that Non-Resident Indians (NRIs) can make unlimited investments in chit funds in India on a non-repatriation basis. This implies that an NRI can get back the proceeds of such investments only in rupee. Earlier, NRIs were not allowed to invest in companies that were engaged in the business of chit funds.
- The central bank has stated that investments can be made to chit funds approved by the Registrar of Chits for receiving NRI funds. Such funds will have to be brought through the normal banking channel, including through an account with a bank in India.

IMPACT

- Chit funds are often not managed properly and various scams, like the Sharda chit fund scam in West Bengal, have been exposed in recent times.
- Hence, allowing NRIs to invest in chit funds is a positive step because to attract more investment, chit fund managers will adopt a transparent and honest process in managing chit funds. This will also lead to financial inclusion of the unbanked rural investors.

Chit Funds

- Chit funds are known by various names such as Chitty, Kuri etc.
- They are essentially saving institutions.
- Chit funds have regular members who make periodical subscriptions to the fund.
- The periodic collection is given to some member of the chit funds selected on the basis of previously agreed criterion.
- The beneficiary is usually selected on the basis of bids or by draw of lots or in some cases by auction or tender.
- In any case, each member of the chit fund is assured of his turn before the second round starts and any member becomes entitled to get periodic collection again.

REGULATION

- The Chit fund business is regulated under the **Central Act of Chit Funds Act, 1982**.
- Rules are framed under this Act by various State Governments for this purpose. The Central Government has not framed any rules of operation for them. Thus, registration and regulation of Chit funds are carried out by State Governments under the rules framed by them.
- Functionally, Chit funds are included in the **definition of Non- Banking Financial Companies by RBI under the sub-head miscellaneous non-banking company (MNBC)**. However, RBI has not laid out any separate regulatory framework for them.
- Cheating by Chit Fund Company through fraudulent schemes is an offence **under the Prize Chits and Money Circulation Schemes (Banning) Act, 1978**. The power to investigate and prosecute lies with the State Governments.

INDIA NUCLEAR INSURANCE POOL LAUNCHED

INTRODUCTION

- General Insurance Corporation of India (GIC) and 11 other non-life insurers have formed the India Nuclear Insurance Pool.
- It will have a capacity of Rs. 1,500 crore.
- New India Assurance will issue the policy and deal with management of cover to the operators and suppliers, on behalf of all direct insurance companies participating in the pool.
- This pool will be the 27th such market pool globally.

CONTEXT

- In 2010, Parliament passed the Civil Liability of Nuclear Damage (CLND) Act, which creates a liability cap for nuclear plant operators for economic damage in the event of an accident.
- The CLND Act also provides for state-run Nuclear Power Corporation of India, which operates all atomic power plants in India, to seek compensation from suppliers in an accident due to faulty equipment. The CLND Act provides for Rs 1,500 crore as maximum liability for nuclear damage.
- The idea of forming a nuclear insurance pool was mooted in early 2013. But it got stuck due to differences among stakeholders on certain clauses.

KEY PROVISIONS

- The policies offered will be of two kinds: Nuclear Operators Liability (CNLD Act 2010) Insurance Policy and Nuclear Suppliers' Special Contingency (against Right to Recourse) Insurance Policy.
- It is expected to address third-party liability insurance to begin with and later expand into property and other hot zone (inside reactor areas) risk. This will cover both operators and suppliers. At present, only cold zones (outside reactor areas) are covered.
- This pool will provide the risk transfer mechanism to the operators and suppliers to meet their obligations under the CLND Act.
- At a later stage, this pool also looks to provide reinsurance support to other such international pools.

IMPACT

- It will address the concern of suppliers like that of the Gorakhpur Haryana project as well as foreign players.
- It will give several long-pending nuclear energy projects a push forward.

SPECIAL PURPOSE VEHICLE (SPV) TO IMPROVE CONNECTIVITY TO PORTS

INTRODUCTION

- India has a coastline of 7517 km forming one of the biggest peninsulas in the world.
- Twelve large and more than 180 intermediate and minor ports serve it and around 90 per cent of India's trade moves by sea.
- Major ports are controlled by the central government (the Central Shipping Ministry) and minor ports by state governments (ministries in nine coastal states).
- The classification of Indian ports into Major, Minor and Intermediate has an administrative significance. Indian government has a federal structure and according to the Constitution of India, maritime transport falls under the "concurrent list", which is administered by both the Central and State governments.

- Several of these Minor and Intermediate ports are merely “notified”, with little or no cargo handling actually taking place. These ports have been identified by the respective governments to be developed, in a phased manner, a good proportion of them involving Public-Private Partnership.
- There is an immense potential for modernization and growth of Indian ports.

Difference between Harbour and Port

- **Harbour:** A harbour is a partially enclosed area in the sea, for example, a creek, an estuary, or a sea-inlet providing shelter to the sailing ships.
- **Port:** A port is that place on the coast, with docks, wharves and berthing facilities, where cargo in large quantities is received from oceanic routes and sent to the interior of the country through land routes and vice-versa.

EFFICIENCY OF PORTS: CHALLENGES AND PROSPECTS

- The key determinants for efficiency of Ports are **Evacuation and Hinterland Connectivity**.
- An efficient evacuation system and seamless connectivity to the hinterland from the Port can substantially reduce the logistic costs for the trade, which will enhance the competitiveness of India. (Ports handle more than 90% of the EXIM trade of the country by volume and are critical to enhance competitiveness of the country in the international trade).
- The internal Rail Systems in Major Ports have evolved over the past five decades and are antiquated and need renewal.
- The 12 Major Ports have nearly 612 km of internal rail network. The Government is keen on increasing the percentage of cargo being evacuated through rail from Major Ports, which stands at 28% now.
- Though the Major Ports and Indian Railways have taken up many connectivity projects, there is an urgent need for focused attention and substantial allocation of resources.
- Increased movement through rail and coastal/inland water transport can go a long way in reducing the congestion in the already stressed road network and reduce the adverse externalities associated with it.

Difference between Natural and Artificial Harbours

- **Natural Harbours:** Natural harbours generally occur along a fairly indented coastline. If an inlet or a backwater bay penetrates inland for longer distance, it facilitates the transportation of the land-bound cargo further inland from the open seaboard at cheaper rates.
- **Artificial or Man-made Harbours:** These harbours are constructed by dredging and erecting a wall against the sea along the coastline.

SPV INITIATIVE

The Ministry of Shipping has proposed to create a **Special Purpose Vehicle (SPV)**, which would focus on providing efficient evacuation systems in Major Ports and improving connectivity.

- The SPV focusing on Port Connectivity will **fit into the ambitious Sagarmala Programme of the Government, which aims at promoting port-led direct and indirect development** and to provide the infrastructure to evacuate goods from ports quickly and efficiently.
- The SPV would be registered as a Company under the Companies Act with an initial authorized capital of Rs. 500 crores.
- It would be funded by all the twelve Major Ports and Rail Vikas Nigam Limited (RVNL). The Major Ports would contribute 90% of the equity with RVNL contributing the rest.

- It is also proposed to raise resources from multilateral funding agencies and other financial institutions to finance Port Connectivity projects.
- The SPV would be manned by professionals with expertise on rail transport and port logistics.
- It would be headquartered in Mumbai with a registered office in New Delhi.
- The SPV would work in close coordination with the Indian Railways and leverage the existing participative model of Indian Railways for enhancing the last mile connectivity to the Ports.
- The work of the SPV is expected to result in substantial reduction in dwell time of the cargo in the Ports and bring down the overall logistic cost of trade.

PROJECTS TO BE UNDERTAKEN

The SPV would undertake the following Projects:

- Last mile connectivity to Major Ports
- Modernization of evacuation infrastructure in Ports
- To operate and manage internal Port Railway system
- To raise financial resources for funding Port related Railway Projects

The Major Ports have identified a shelf of nearly 40 Projects, which includes the last mile connectivity Projects and internal Port Rail Projects, which would require an estimated investment of Rs. 2,372 crores.

SAGARMALA

INTRODUCTION

- “Sagar Mala” is a strategic, customer-oriented initiative of Government of India to evolve a model of port led development whereby India’s long coastline will become the gateway of India’s prosperity.
- It envisages transforming the existing Ports into modern world class Ports on the one hand and developing new world class Ports, based on the requirement, on the other hand.
- Sagar Mala aims to develop Ports, hinterland and efficient evacuation systems through road, rail, inland and coastal waterways resulting in Ports becoming the drivers of economic activity in coastal areas.
- It envisages the growth of coastal and inland shipping as a major mode of transport for carriage of goods and people along the coastal and riverine economic centers.
- As an outcome, the Sagar Mala would integrate the hinterland projects of Industrial and Freight Corridors with the maritime developments to offer efficient and seamless transport for both EXIM and domestic sectors thereby reducing logistics costs for the customer and making exports more competitive.
- The Union Cabinet chaired by the Prime Minister has given its ‘in-principle’ approval for the concept and institutional framework of the Sagar Mala Project.

RATIONALE FOR THE SAGAR MALA INITIATIVE

- Today, ports carry about 90% of India’s total trade by volume. The current proportion of Merchandise Trade in GDP of India is only 42% whereas for some of the developed countries in the world such as Germany and European Union it is 75% and 70% respectively. Therefore, India still has a potential to increase its merchandise trade.
- Moreover, with the current emphasis on “Make in India” the proportion of merchandise trade in India’s GDP is expected to increase and rapidly reach proportions seen in developed countries. Thus, ports would play a vital role in enhancing trade and commerce potential of the country by enhancing their operational efficiency and capacity well in advance of the need.

CHALLENGES FACED BY THE MARITIME SECTOR IN INDIA

The growth of India's maritime sector has been mired by many developmental, procedural and policy related challenges. Some of them are listed below:

- Involvement of multiple agencies in development of infrastructure to promote industrialization, trade, tourism and transportation across country.
- Presence of a dual institutional structure that has led to development of Major and Minor ports as individual projects.
- Lack of infrastructure for evacuation at major and minor ports leading to sub-optimal transport modal mix.
- Limited hinterland linkages that in turn increases the cost of transportation and cargo movement.
- Limited development of coastal centers for manufacturing, urban and economic activities.
- Low penetration of coastal and inland shipping in India due to limited facilities, higher costs and policy constraints.
- Presence of selective mechanization and procedural bottlenecks at ports.
- Lack of scale, deep draft and other facilities at various ports in India.

KEY COMPONENTS OF SAGAR MALA

Sagar Mala is being envisioned as an integrated infrastructure cum policy initiative that will provide a three pronged approach for development of India's Maritime Sector focusing on port-development, port-led development and inland/coastal shipping supported by enabling policies, institutional framework and funding mechanism to ensure inclusive growth. Therefore, from development perspective, the Sagar Mala concept has three key deliverables enlisted below:

- **Port Modernization:** Transform existing ports into world-class ports by modernization of port infrastructure and existing systems. Also ensure inter-agency coordination for synergistic development at both major and minor ports
- **Efficient Evacuation Systems:** Develop efficient rail, road and coastal / IWT networks to the hinterland and promote Inland / Coastal shipping as a most preferred mode of transportation
- **Coastal Economic Development:** Encourage coastal economic activity in coastal regions by:
 - Development of Coastal Economic Zones (CEZ), port based SEZs / FTWZs, captive ancillary industries; and
 - Promotion of coastal tourism

These three outcomes will in turn be supported by enabling policies, robust institutional structure and appropriate financing & funding mechanism to ensure inclusive growth.

INITIATIVES UNDER SAGAR MALA

In order to achieve the three key deliverables, the two broad initiatives that will drive Sagar Mala are:

- Development of Coastal Economic Regions (CER)
- Policy initiatives to promote coastal shipping and seamless operations in Ports

INSTITUTIONAL FRAMEWORK

- The Institutional Framework for implementing SagarMala has to provide for a coordinating role for the central government. It should provide a platform for central, state governments and local authorities to work in tandem and coordination under the established principles of "cooperative federalism", in order to achieve the objectives of the SagarMala Project and ensure port-led development.

- **A National SagarMala Apex Committee (NSAC)** is envisaged for overall policy guidance and high-level coordination, and to review various aspects of planning and implementation of the plan and projects. The NSAC shall be chaired by the **Minister in charge of Shipping**, with Cabinet Ministers from stakeholder Ministries and Chief Ministers/Ministers in charge of ports of maritime states as members. This committee, while providing policy direction and guidance for the initiative's implementation, shall approve the **overall National Perspective Plan (NPP)** and review the progress of implementation of these plans.
- **SagarMala Coordination and Steering Committee (SCSC)** shall be constituted under the chairmanship of the Cabinet Secretary with Secretaries of the Ministries of Shipping, Road Transport and Highways, Tourism, Defence, Home Affairs, Environment, Forest & Climate Change, Departments of Revenue, Expenditure, Industrial Policy and Promotion, Chairman, Railway Board and CEO, NITI Aayog as members. This Committee will provide coordination between various ministries, state governments and agencies connected with implementation and review the progress of implementation of the National Perspective Plan, Detailed Master Plans and projects. It will, inter alia, consider issues relating to funding of projects and their implementation. This Committee will also examine financing options available for the funding of projects, the possibility of public-private partnership in project financing/construction/operation.
- At the Central level, **Sagar Mala Development Company (SDC)** will be set up under the Companies Act, 1956 to assist the State level/zone level Special Purpose Vehicles (SPVs), as well as SPVs to be set up by the ports, with equity support for implementation of projects to be undertaken by them. The SDC shall also get the Detailed Master Plans for individual zones prepared within a two-year period. The business plan of the SDC shall be finalized within a period of six months. The SDC will provide a funding window and/or implement only those residual projects that cannot be funded by any other means/mode.

BENEFITS OF SAGAR MALA

- **Employment Generation:** SagarMala will lead to large-scale employment generation of skilled and semi-skilled manpower. Employment generation will be in industrial clusters and parks, large ports, maritime services, logistics services, and other sectors of the economy that will be directly and indirectly impacted by port-led development under Sagarmala.
- **Increase in Industrial Output:** Manufacture of ships, vessels, cruise ships, barges and tugs will also increase industrial output and also contribute to employment generation.
- **Sustainable Development:** Implementation of Sagarmala will also result in effective steps to ensure sustainable development of the population living in the Coastal Economic Zones (CEZ) by synergising and coordinating with State Governments and line Ministries of Central Government through their existing schemes and programmes such as those related to community and rural development, tribal development and employment generation, fisheries, skill development, tourism promotion etc. Today about 70 lakh people are dependent on fisheries for their livelihood.
- **Simplified Procedures:** It also aims at simplifying procedures used at ports for cargo movement and promotes usage of electronic channels for information exchange leading to quick, efficient, hassle-free and seamless cargo movement.

The SagarMala Project therefore intends to achieve the broad objectives of enhancing the capacity of major and non-major ports and modernizing them to make them efficient, thereby enabling them to become drivers of port-led economic development, optimizing the use of existing and future transport assets and developing new lines/linkages for transport (including roads, rail, inland waterways and coastal routes), setting up of logistics hubs, and establishment of industries and manufacturing centres to be served by the ports in EXIM and domestic trade.

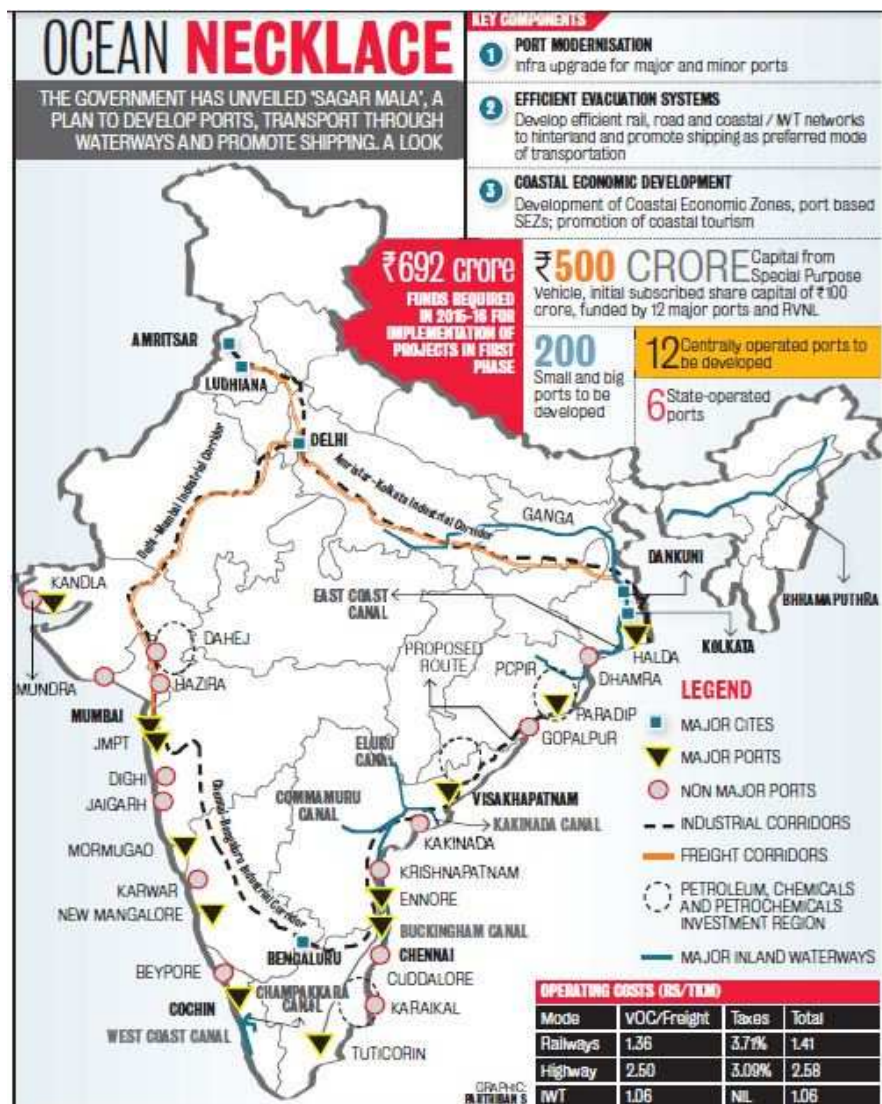
ALIGNMENT WITH KEY NATIONAL PRIORITIES

The Sagar Mala project is also aligned to the other national priorities of the Government and dovetails the program deliverables into those namely:

- **Development of Smart Cities:** Cities such as Vizag, Krishnapatnam are likely to be focal points of the CER in Andhra Pradesh. Similarly, the other CERs will work towards the planned growth of other port towns / clusters into smart cities.

- **Ganga Waterway and Clean-up projects:** The Sagar Mala envisages seamless connectivity of the sea-borne cargo with Inland Waterways for hinterland movement of which the NW-1 is a critical component. Further, Sagar Mala envisages a holistic development of riverine trade, transport and tourism. It will leverage the ongoing projects for the cleanup of the Ganga and its beautification to develop tourism circuits and support organized industrialization in the inland CER in order to reduce the impact of pollution.

- **Good governance:** Sagar Mala aims to move all transactions online, re-engineer processes and effect seamless administration through use of IT and organization enablers to offer better services to users and customers.
- **Make In India:** The development of CERs integrating existing and new coastal industrial clusters, SEZs, FTWZs and port infrastructure will enable export oriented manufacturing in India.
- **Reducing Transaction costs:** The use of simplified processes and seamless information and goods movement is expected to reduce transaction costs and enable businesses and trade to become more competitive.



INDIA FOR A PERMANENT SOLUTION TO FOOD SECURITY AT WTO

- Ahead of the 10th WTO ministerial conference to be held in Nairobi in December, India will insist that countries agree to a permanent solution to the dispute over **public stockholding of foodgrains** by December as originally promised, even though developing nations have been granted an indefinite interim reprieve.
- India said that it is not satisfied with the **peace clause** for perpetuity. We need a permanent solution. At the Bali meetings of the WTO in Dec 2013, India, along with other developing countries, was able to negotiate a "**peace clause**" that allowed it to go beyond the 10 % cap for its MSP with immunity from legal challenge from other WTO member countries for the **next four years**, within which time period a permanent solution would be devised.

- The issue of public stockholding of food revolves around the ***procurement of foodgrains from farmers at prices fixed by governments in order to promote the food security of poor countries.*** As these prices involve a degree of government subsidy, there is a cap on these subsidies as they could otherwise end up *distorting global prices*. However, developing countries insist that they should not be penalized for breaching any limits, arguing that such stockholdings are crucial for food security.
- Developing countries also oppose a WTO rule that caps subsidies to farmers at ***10% of the total value of agricultural production based on 1986-88 prices.*** They point out that the **base year is now outdated** and they need to be given leeway to stock enough foodgrains to ensure food security for millions of their poor.
- In Nairobi, India will also raise the matter of the ***high farm subsidies provided by developed countries*** and will call for providing more market access to the world's poorest nations—the so-called least-developed countries (LDCs).

NEW ROAD FINANCING MODELS:

The government is examining a slew of measures to rope in private investors. The Centre's initiative comes at a time when private road developers have stopped investing in road projects owing to land acquisition problems and funding constraints in the last few years. And at the same time, the PM has drawn up an ambitious target to award highway projects worth Rs 3.5 lakh crore in the next 6 months.

The government has given the go-ahead to the ***Bharat Mala project*** aimed at developing 5,600 km of new roads in border areas at an estimated cost of Rs 56,000 crore. Another 4,700 km of roads to connect religious and tourism centres and to enhance connectivity in backward areas is expected to come up at an estimated cost of Rs 44,000 crore. Besides this, world-class highways will be developed to connect 100 of the 676 district headquarters in the country.

The initiatives of government towards fulfilling above targets:

- **Swiss Challenge System (SCS)**: The SCS is a *bidding process* designed to enlist private sector initiatives in core sector projects. As per this norm, private investors can conceptualise and offer for evaluation of a project to the government. An infrastructure company, owning a port for instance, may want to develop the last-mile road to improve accessibility.
- *The SCS allows third parties to make better offers (challenges) for a project during a designated period to avoid exaggerated project development costs.* The original proponent, however, is accorded the right of first refusal and the right to counter-match any superior offers given by the third party. But, the SCS has not proved to be very successful elsewhere. The private entity is required to make a lot of initial investment under this model, which he may not be able to recover unless he wins the contract.
- **Hybrid Annuity Model To Offset Risks**: For the first time, the MoRTH is scheduled to award highway projects under a freshly conceived 'hybrid annuity model' to transfer a higher proportion of risk to the government while at the same time *cutting down on the upfront funding* required to be made by the private sector. Under it the *government would provide 40 % of the project cost to the developer* to start work. The remaining investment will have to be made by the contractor. The NHAI will collect toll and refund the amount in installments over a period of 15-20 years.
- **Exit Policy To Release Funds**: The CCEA approved an exit policy permitting developers to exit highway projects two years after completion of construction to release locked-in equity as potential capital for future projects.. The move comes at a time when the private sector interest in the PPP projects has dwindled with most projects failing to attract even a single bid.
- **NHAI Loans For Stalled Projects**: The CCEA has now authorised the NHAI to loan resources from its corpus at a pre-determined rate of return to kick-start such projects, stalled due to lack of additional equity or inability on part of the concessionaire to disburse funds further.

- **Government To Government Funding** :The ministry is also examining a proposal to liberalise norms and allow government-to-government funding to mobilising additional resources for road development programmes. Under the current norms, Exim (Export-Import) Banks of foreign countries are not permitted to lend resources to concessionaires based in their home states to develop highway projects in India. One has to go in for open tendering. As per the model being examined, economically viable stretches of highways can be identified and put up for development as per the proposed financing norm to attract foreign participation in the sector.

PAST YEAR PRELIMS QUESTIONS

1. In which one of the following States has India's largest private sector sea port been commissioned recently?
(a) Andhra Pradesh
(b) Karnataka
(c) Kerala
(d) Tamil Nadu
2. In India, the ports are categorized as major and non-major ports. Which one of the following is a non-major port?
(a) Kochi (Cochin)
(b) Dahej
(c) Paradip
(d) New Mangalore

INDIA AND WORLD

PRESIDENT'S VISIT TO SWEDEN

The President of India Visited Sweden. This was the **first ever State Visit by a President of India to Sweden**.

During the visit, the following agreement were signed:

1. MoU on Cooperation in the field of **Sustainable Urban Development**.
2. MoU in the field of **Micro, Small and Medium Enterprises**.
3. Letter of Intent on **Collaboration in Polar and Ocean Research**.
4. An agreement, complimentary to the ongoing cooperation between India and Sweden covering the area of **health** for increasing bilateral cooperation in the **fields of pharmacovigilance, electronic submissions in related matter, clinical trials, drugs, medical devices and diagnostic kits, cosmetic and hygiene products and for exchange of information and experiences regarding good manufacturing practice**.
5. 16 MoU between various Indian universities/institutions with their Swedish counterparts for **cooperation in the field of education**.

It is hoped that these agreements would further strengthen the bilateral relations between the two countries. **Sweden also endorsed India's claim to Permanent Membership of the United Nations Security Council** and has provided proactive efforts that **helped India achieve Observer status in the Arctic Council during the period of Sweden's Chairmanship**.

PRESIDENT'S VISIT TO BELARUS

This was the **first visit by an Indian President to Belarus**. During this visit a **17-point road map aimed at strengthening mutual trust and confidence was signed between the two countries**.

India and Belarus inked six agreements during President's visit as under:

1. Roadmap for India-Belarus Cooperation on **economic, defense and security matters**.
2. Protocol amending the agreement between the Government of the Republic of India and the Government of the Republic of Belarus for **the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income and on Property (Capital)**.
3. MoU between Bureau of Indian Standards and the State Committee for Standardization of the Republic of Belarus on Cooperation in the field of **Standardization and Information Support**.
4. MoU between Prasar Bharati (PB) and the National State Television and Radio Company of the Republic of Belarus (Belteleradio company) for **cooperation on Broadcasting**.
5. MoU on Bilateral Cooperation between the **Securities and Exchange Board of India and the Ministry of Finance of the Republic of Belarus**.
6. MoU between the Ministry of Textiles of the Republic of India and the Belarusian State concern for **Manufacturing and Marketing of Light Industry Goods**.

The two countries also decided to enhance coordination in science and technology, energy sector, metals and mining, potash fertilizers, give boost to raw material in textile sector, extend cooperation by Belarus in modernization of public electric transport system in India, agriculture and agro procession. Exchange of students and promotion of tourism also figured in the agreements.

INDIA, US SIGN NEW 10-YEAR DEFENSE FRAMEWORK PACT

- India and the US signed a new strategically important 10-year defence framework pact **envisaging joint development and manufacture of defence equipment and technology including jet engines, aircraft carrier design and construction.**
- Both sides also finalised two project agreements for **hi-tech mobile power source** and **next generation protective suits for chemical and biological warfare.**
- The framework agreement, which was decided during the visit of US President Barack Obama to India in January and focuses on issues ranging from maritime security and joint training, was inked by Defence Minister Manohar Parrikar and visiting **US Defence Secretary Ashton Carter.**

PRIME MINISTER'S VISIT TO BANGLADESH

The Indian PM paid the state visit to Bangladesh, accompanied by Chief Minister of West Bengal. Following were some of the agreements/MoUs that were signed/agreed during the visit:

1. **Land Boundary Agreement** –Protocol for exchange of Instrument of Ratification regarding the India-Bangladesh Land Boundary Agreement, 1974 and Protocol of 2011 to the Land Boundary Agreement: Thus, the Agreement concerning the Demarcation of the Land Boundary between India and Bangladesh and Related Matters of 1974 and the 2011 Protocol to the 1974 Agreement come into effect with the exchange of Instrument of Ratification.
2. **Agreement on Coastal Shipping between India and Bangladesh:** Agreement seeks to promote two-way trade between India and Bangladesh through ports. **Presently, shipping cargo plies between the countries through Colombo/Singapore/Klang ports.** Coastal shipping will reduce shipping time and help in reducing congestion at the land ports.
3. **Bilateral Trade Agreement (Renewal):** The agreement was first signed in 1972. The renewal of Agreement envisages **promotion of trade through land, waterways, and railways between the two countries and provides for transit to the North-East India.** It also facilitates access to Bangladesh cargo through India into Nepal and Bhutan. The Agreement has a validity of five years with provisions for auto renewal.
4. **Bilateral Cooperation Agreement between Bureau of Indian Standard (BIS) and Bangladesh Standard and Testing Institute (BSTI) on cooperation in the field of Standardization:** The Agreement seeks to eliminate technical barriers to trade to facilitate and enhance reciprocal market access of products to each other's countries.
5. **Agreement on Dhaka-Shillong-Guwahati Bus Service** and its Protocol: Agreement provides for operation of passenger buses between Dhaka and Guwahati with **stops at Shillong and Sylhet.** Will promote people to people contact.
6. **Agreement on Kolkata-Dhaka- Agartala Bus Service** and its Protocol: Agreement provides for operation of passenger buses directly between Agartala and Kolkata with one stoppage at Dhaka. Would reduce the travel distance between the two state capitals of West Bengal and Tripura.
7. **Protocol on Inland Waterways Transit and Trade (PIWTT) (renewal):** Protocol was first signed in 1972. Protocol outlines **mutually beneficial arrangements for use of waterways of both countries** for commerce between them and for passage of goods between two places in one country and to third countries through the territory of the other under mutually agreed terms. Protocol has five years validity with automatic renewal.
8. **Cultural Exchange Programme** between the Government of India and the Government of Bangladesh for the year 2015-2017.
9. **MoU between Government of India and Government of Bangladesh for extending a new Line of Credit (LoC) of US Dollar 2.0 billion:** India extends a new LoC of US Dollar 2.0 billion to Bangladesh. Projects, which are critical for social and infrastructure development in Bangladesh, such as, in Power, Railways,

Road Transportation, Information & Communication Technology, Shipping, Health, Technical Education sectors, will be considered for financing under the New Line of Credit of US\$ 2 Billion.

10. MoU between India and Bangladesh on **Use of Chittagong and Mongla Ports for Movement of Goods to and from India**: MoU provides that Bangladesh shall allow use of Chittagong and Mongla Ports for the movement of goods to and from India by using Chittagong/Mongla to the North-eastern states. **Movements of goods to and from Chittagong and Mongla Ports may be by multimodal transport.**
11. MoU between India and Bangladesh on **Blue Economy and Maritime Cooperation in the Bay of Bengal and the Indian Ocean**: Envisages cooperation on blue economy and maritime sphere for **capacity building, training and joint research collaborations**, and setting up of a Joint Working Group to further cooperation in this area.
12. MoU between Government of India and Government of Bangladesh on **Bilateral Cooperation for Prevention of Human Trafficking, Smuggling and Circulation of Fake Currency Notes.**
13. MoU on establishment of **Indian Special Economic Zone in Bangladesh**: Envisages cooperation for the establishment of an **Indian Economic Zone with the participation of business entities from both countries.** Both the countries will work out preferential policies and encourage investors/companies/business communities of the two countries to set up units in Indian Economic Zone in Bangladesh.
14. MoU between the **Coast Guards of India and Bangladesh**: Consequent to the settling of Maritime boundary between India and Bangladesh, MOU seeks cooperation between both the Coast guards to **ensure jointly marine security and prevent crimes at sea.**
15. MoU for a **Project under India Endowment for Climate Change – South Asia (IECC-SA)** of SAARC to supply **70000 Improved Cook Stoves to Bangladesh.**
16. Cooperation in the Field of **Education**: First comprehensive document for **bilateral cooperation in education sector.** The 'Statement of Intent' provides a broad framework to enhance bilateral cooperation in the field of education.

Thus, a whole gamut of areas were covered and it is expected that they usher in improved bilateral relations. Regarding the **pending issue of Teesta river water sharing**, in the joint statement India committed to settle the issue as soon as possible. However, **India addressed the long pending demand of Bangladesh to stop the construction of the Tipaimukh Hydro-Electric power Project on the Barak River.** Further, India also committed to not to initiate any unilateral construction of the inter-linking of Himalayan rivers.

GLOBAL APOLLO PROGRAM

The Global Apollo Programme aims to **make the cost of clean electricity lower than that from coal-fired power stations across the world within 10 years.** It calls for **15billion British Pounds a year of spending on research, development and demonstration of green energy and energy storage**, the same funding in today's money that the US Apollo programme spent in putting astronauts on the moon.

- The plan is the brainchild of a group of eminent UK scientists, economists and businessmen including Sir David King, currently the UK's climate change envoy, Lord Nicholas Stern, Lord Adair Turner and ex-BP chief Lord John Browne.
- The programme was discussed at the Energy Ministers run-up meeting to the 41st G7 summit.
- It is hoped that the initial signatory countries will be announced at the G-20 Summit in Turkey in November 2015

India has shown willingness to join the programme. Notably, India and China, both are large economies powered by the fossil fuels, will be central to the plan.

INDIA SIGNS PACT ON AUTOMATIC EXCHANGE OF TAX INFORMATION

India joined the **Multilateral Competent Authority Agreement (MCAA) on Automatic Exchange of Financial Account Information**.

The new system, dubbed the **Common Reporting Standards (CRS)** on Automatic Exchange of Information (AEOI), is very wide in scope and obliges the treaty partners to exchange a wide range of financial information, including that about the ultimate controlling persons and beneficial owners of entities.

Previously, information was exchanged between countries on the basis of specific requests relating to cases of tax evasion and other financial crimes. **AEOI, when fully implemented, sets up a system wherein bulk taxpayer information will periodically be sent by the source country of income to the country of residence of the taxpayer.**

LAC DIFFERENCES MAY STALL INDIA-CHINA CBMS

The China-India track on a possible new round of confidence-building measures (CBMs) is expected to see a contest between **New Delhi's insistence on the clarification of the Line of Actual Control (LAC)** and **Beijing's focus on the elaboration of a "code of conduct" among border troops.**

The clarification of the LAC, which was publicly raised by Prime Minister Narendra Modi during his China visit last month, is one of the core objectives of the CBM process. It was formally documented in the **peace and tranquility accord that was signed in 1993**. The spirit behind LAC clarification is to prevent inadvertent incidents along the border. **India's stand is that, unless we have a reliable reference point, which a clarified LAC would provide, there is always a danger of inadvertent border incidents on the ground or in the air.**

On the other hand, **China's preference is for deepening the code of conduct regime over the LAC clarification process.** Countering this India says that, the code of conduct has already been fully elaborated in the **CBM protocol along the LAC that was signed by the two sides in 2005**. The wide ranging protocol covers all the conceivable contingencies that may arise and ways to address them.

Though, the Chinese side was committed to LAC clarification in the documents signed between September 1993 to November 2006, but for some "explicable" reason have not endorsed the process on paper since 2008. LAC clarification process had fully commenced following the **1996 CBM** accord where there was an agreement to exchange maps indicating the "respective perceptions" of the two sides regarding "the entire alignment of the LAC as soon as possible". The **Middle Sector process of clarification was broadly completed, but problems arose in clarifying the Western Sector.** According to an understanding that had been previously reached, the Eastern Sector clarification was to subsequently commence, but the entire process has since been stalled.

MOTOR VEHICLES AGREEMENT (MVA)

India, Nepal, Bhutan and Bangladesh signed a landmark **Motor Vehicles Agreement (MVA) for the Regulation of Passenger, Personnel and Cargo Vehicular Traffic among the four South Asian neighbours.**

- The MVA agreement between sub-groupings of four SAARC nations Bangladesh, Bhutan, India and Nepal (BBIN) will pave the way for a seamless movement of people and goods across their borders for the benefit and integration of the region and its economic development.
- The BBIN framework is seen as a conducive model of sub-regional co-operation in the area of Connectivity which involves transport as well as energy.

- This would further **need to be supplemented through building and upgrading roads, railways and waterways infrastructure energy Grids, communications and air links** to ensure smooth cross border flow of goods, services, capital, technology and people. Taken together, this provides enormous opportunity for integration and development of our region.

A similar framework has been finalized between India, Myanmar and Thailand. Once it is signed India will get access to the larger ASEAN market through seamless passenger and cargo movement.

PRESIDENT OF TANZANIA ON STATE VISIT TO INDIA

India and Tanzania have decided to establish a **joint working group to strengthen cooperation in counter-terrorism**. Both countries had a **common interest in maritime security in the Indian Ocean and a peaceful and prosperous Africa**. India offered cooperation in the development of the **potentially rich natural gas sector in Tanzania**. India has announced **e-tourist visa for the people of the African nation**.

The two countries have signed the following agreements/MoUs:

1. MOU on **Cooperation in the field of Tourism**- To Enhance bilateral cooperation in Tourism and hospitality sectors.
2. **Loan agreement between Exim Bank and Government of Tanzania on LOC for US\$ 268.35 million** for extension of **Lake Victoria pipeline project**.
3. MOU for Cooperation in the field of **Hydrography between Tanzania and India** & Protocol on exchange of Hydrographic Data- To promote development and cooperation in the field of Hydrography through conducting surveys, exchange of data, capacity building and infrastructure strengthening.

INDIA FAILING TO CURB TERROR FUNDS: U.S.

The U.S. State Department has hit out at India for ineffective implementation of anti-money laundering (AML) and counterterrorist financing (CFT) laws

Despite India aligning its domestic AML-CFT regime with international standards, The Indian government has yet to implement the legislation effectively, especially with regard to criminal convictions.

U.S. alleged that the Indian government was restricting its enforcement anti-hawala prosecutions to non-financial businesses only, and more than two years after the Prevention of Money Laundering Act, the government has not taken adequate steps to ensure all relevant industries are complying. These findings were highlighted in the "**Country Terrorism Reports 2014**", of the US State Department.

INDIA 3RD LARGEST FDI SOURCE FOR THE UNITED KINGDOM IN 2014

According to a recent report released by UK Trade and Industry (UKTI), in 2014-15, **India with 122 projects was the third largest source of inward investment to UK** following U.S. (564 projects) and France (124 projects). During the year, **investment from India increased by 65 per cent**.

The key sectors where Indian companies invested include **healthcare, agri-tech, food and drink**. As per the Inward Investment Report 2014-15 of UKTI, 70 countries invested a record £1 trillion in UK in 2014-15, making it Europe's top FDI destination.

INDIA AND THAILAND

During the visit of Minister of External Affairs to Thailand both countries signed a number of important agreements, including the **double taxation avoidance treaty**, and **exchanged instruments of ratification on the extradition treaty inked in 2013**, which provides for the legal framework for seeking extradition of fugitive offenders.

- The two sides also signed a **Memorandum of Understanding (MoU) on the Establishment of Nalanda University**. By signing this agreement, Thailand joins other East Asian Summit countries in the establishment of Nalanda University in Bihar.
- Another significant development during visit is the signing of an **MoU on the establishment of an Ayurveda Chair in one of the Thai Universities**. The MoU is between the Ministry of Ayush and Rangsit University of Thailand under which the Central Council for Research in Ayurvedic Sciences will set up a Chair at the Thai University to undertake academic and research activities in Ayurveda.
- The complementarity of ties between the two countries was expressed by the External Affairs Minister when she said **"Our Act East policy perfectly compliments Thailand's Look West policy,"**.

SCIENCE AND TECHNOLOGY PACT BETWEEN INDIA AND SOUTH AFRICA

South Africa and India have renewed an **agreement to extend cooperation** in the field of **social innovation, astronomy, agriculture, biotechnology and indigenous knowledge systems** for the next three years.

Relations between the two sides in science and technology dates back to 1995, when they signed a bilateral agreement. The instrument to implement this agreement is a programme of cooperation, which is renewed every three years.

INDIA LEADING FDI DESTINATION IN IN SOUTH ASIA IN 2014 :

According to the **UNCTAD's World Investment Report 2015** with FDI inflows surging by **22 per cent to about \$ 34 billion in the year 2014**,

India jumped to the ninth rank in 2014 with a 22 per cent rise in FDI inflows to \$34 billion. India was at the 15th position in the previous two years. India leads regional inflow of Foreign Direct Investment (FDI) in South Asia and the upward trend is likely to continue this year also.

FDI inflows to South Asia rose to \$ 41 billion in 2014, primarily owing to good performance by India.

China became the largest recipient of FDI in 2014 with \$129 billion inflows, followed by Hong Kong (China) that received \$103 billion and the U.S. with \$92 billion. At 39 per cent, Hong Kong saw the biggest surge in inflows during the year. Among the top 10 FDI recipients in the world, half are developing economies - Brazil, China, Hong Kong (China), India and Singapore.

India was also the biggest investor in outward FDI in South Asia with \$ 9.8 billion marking an increase of 486 per cent over 2013. However, India does not figure in the first top 20 countries for FDI outflows.

The **US had the largest outward flow of FDI (\$ 337 billion)** followed by Hong Kong-China (\$ 142 billion) and China (\$ 116 billion).

India is the only BRIC (Brazil, Russia, India and China) country that hasn't yet crossed the \$50 billion-a-year FDI mark.

INDIA PLEDGES US\$ 1 BILLION FOR RECONSTRUCTION IN NEPAL :

India pledged \$1 billion in assistance to quake-ravaged Nepal for its massive reconstruction programme. The announcement was made by External Affairs Minister at the International Conference on Nepal's Reconstruction organised by the Nepalese government to raise funds for rebuilding the country devastated by a powerful earthquake. This pledge is over and above India's existing bilateral developmental assistance of another one billion US dollars over the next five years, forty per cent of which would be Grant.

VISION IAS

THE WORLD AFFAIRS

COLOMBO PASSES 19TH AMENDMENT TO THE SRI LANKAN CONSTITUTION

The 19th Amendment (19A) to the Constitution of Sri Lanka was passed by the Sri Lankan Parliament. **It is the most revolutionary reform ever applied to the Constitution of Sri Lanka since JR Jayawardhane became the first Executive President of Sri Lanka in 1978.**

- The main prospect of the amendment is repealing the 18th Amendment which armed the President with extreme powers and reinforcing democracy in the country.
- It establishes a Constitutional Council which will exercise some executive powers previously held by the Executive Presidency.
- The 19th amendment restores many components of the 17th amendment, letting the Constitutional Council to set up some proposed Independent Commissions, like Finance Commission, National Police Commission etc.

RUSSIA TO GET 40 NEW INTER-CONTINENTAL BALLISTIC MISSILES THIS YEAR

Russia's military this year alone will receive over 40 new intercontinental ballistic missiles capable of piercing any missile defences. Russia vowed to continue a big arms modernization programme despite the nation's economic downturn.

Russia accused NATO of reviving the ghost of the Cold War by encroaching close to its borders and seeking to change the strategic balance of power. Ties between Russia and the West have hit new lows over Ukraine and the latest accusations come after **Moscow said it would enhance its nuclear arsenal in response to Washington's plans to station heavy military equipment in eastern Europe.**

Russia and the West accuse one another of endangering global security and the latest spat adds to tensions over Ukraine where Russia-backed separatist rebels seized land in the east after Moscow annexed Crimea from Kiev in early 2014.

SILK ROUTE 2015

Sri Lanka's Army and China's People's Liberation Army engaged in their **second-ever joint exercise named Exercise Silk Route 2015** in Sri Lanka.

China's growing relationship with Sri Lanka is viewed cautiously in India as part of increasing engagement of China in India's neighborhood especially in the Indian Ocean region.

AGREEMENT ON AIIB SIGNED BY 50 NATIONS INCLUDING INDIA:

India was among the 50 founding countries that signed an agreement providing the legal framework for the China-led **\$100 billion multilateral Asian Infrastructure Investment Bank (AIIB)**. The **60-article agreement** specified **each member's share** as well as **governance structure** and **policy-making mechanism of the bank**, which is **designed to finance infrastructure in Asia**. While a **number of Western and European countries**,

including Australia, Germany and France have joined the Bank, the US and Japan have stayed away citing reservations about its openness. The AIIB is seen as a rival to the World Bank and Asian Development Bank.

Key Facts about the AIIB:

- The AIIB will have authorised capital of \$100 billion, and Asian countries will contribute to up to 75% of the total capital. Each member will be allocated a share of the quota based on their economic size, according to the agreement.
- China (30.34 %), India (8.52%) and Russia (6.66%) are the three largest shareholders. Their voting shares are calculated at China- 26.06%, India-7.5% and Russia- 5.92%. Importantly, China will have 26.06% of the voting rights within the multilateral institution, giving it a **de facto veto** in some key decisions despite its insistence it will not have such powers.
- The Bank will have its headquarters at Beijing.



UPSC Mains 2014

India has recently signed to become founding a New Development Bank (NDB) and also the Asian Infrastructure Investment Bank (AIIB). How will the role of the two Banks be different? Discuss the significance of these two Banks for India.

ALSO IN NEWS

K.V. CHOWDARY IS NEW CVC; VIJAI SHARMA NEW CIC

- Former Chairman of the Central Board of Direct Taxes, K.V. Chowdary, has been appointed as the new Central Vigilance Commissioner, while the senior-most Information Commissioner, Vijai Sharma, is the new Chief Information Commissioner.

Few Titbits For Prelims		
	CVC	CIC
Composition	CVC and two vigilance commissioners	CIC and not more than 10 Information Commissioners
Tenure	4 Years or 65 Years, whichever is earlier	5 Years or 65 Years, whichever is earlier
Appointment Procedure	By President on recommendation of panel consisting of PM, LoP, and Home Minister.	By President on recommendation of panel consisting of PM, LoP, and a Cabinet Minister.
Removal Procedure	By President after enquiry by Supreme Court.	Do
Submit Report To	Ministry of Home Affairs	Centre
Power To Punish	No	Yes
Is Chairman Eligible For Re-appointment?	No	No

INTERPOL BLUE CORNER NOTICE TO LALIT MODI

Former IPL chief Lalit Modi, faces an 'Interpol Blue Corner Notice'

INTERPOL NOTICES

- Notices are **international requests for cooperation** or alerts allowing police in member countries to share critical crime-related information, and are **published by the Interpol General Secretariat** at the request of National Central Bureaus (NCBs) and authorized entities.
- The **CBI is the nodal authority** that executes and handles the issuance of all Interpol Notices in India. There are liaison officers in every state police force as well.
 - These are of **eight types**, invoking mutual cooperation between member countries to curb the movement of alleged criminals/accused through international ports or airports. The notices — in order of decreasing gravity of criminal involvement of the individual — are **Red, Blue Green, Black Yellow (Stolen Property Notices) Purple (Modus Operandi (MO) Sheets) Orange Notices and UN Security Council Interpol Special Notices**.

HOW SERIOUS IS THE BLUE CORNER NOTICE AGAINST LALIT MODI?

- It is an **'Enquiry Notice'** that is generally issued to have an individual's identity verified, or to locate a missing individual who could be an identified or unidentified international criminal, or may be wanted for violation of ordinary criminal law, and whose extradition may be requested.
- It was issued on the basis of a request by the Enforcement Directorate, which is probing a case against the former IPL chief.

WHAT DO NOTICES OTHER THAN BLUE SIGNIFY?

- A **Red Corner or "A Series" notice** is a 'wanted notice' issued for offenders who can be arrested and extradited to the country where they are wanted.
- The **Green Corner or "C Series" notice** is a **"Warning Notice"** — to alert law enforcement agencies about people who have committed or are likely to commit offences affecting other countries, and who might be on their territory.
- The **Black Corner or "D Series" notice** circulate information about **unidentified bodies or dead persons** who might have been using false identities.
- **Yellow Notice:** To locate a **missing person** or to identify a person unable to identify himself/herself.
- **Purple Notice or Modus Operandi (MO) Sheets** are to notify law enforcement agencies of **modus operandi, procedures and hiding places**.
- **Orange Notice:** To warn of an event, a person, an object or a process representing **an imminent threat** and danger to persons or property.
- The **UN Security Council Interpol Special Notice** is issued for people targeted by **UN sanctions** against al-Qaeda and Taliban.

WEATHER ALERT SERVICE NOWCAST

- Union Agriculture Minister launched a free SMS service called 'NOWCAST'. The application will provide **alerts and updates on extreme weather conditions** such as thunder, hailstorms, etc. every three hours to over one crore farmers whose mobile phones are already registered with the government's **mKisan portal**.
- The portal will also **provide information about existing insurance products, premium rates, among other details**. Today, farmers can insure their crops under 3 schemes viz. National Agriculture Insurance Scheme (NAIS), Modified National Insurance Scheme (MNAIS) and Weather based Crop Insurance Scheme (WBCIS). However, statistics of the year 2014-15 shows that only about 20% gross cropped area was insured. Major reasons behind such low coverage inter alia include ignorance among farmers about insurance products & procedures and sometimes inordinately high rates.

BHUVAN GANGA MOBILE APP AND WEB PORTAL

- Union Water Resources Minister launched Bhuvan Ganga Mobile Application and web portal after signing of an MoU between the National Mission for Clean Ganga (**NMCG**) and the National Remote Sensing Centre (**NRSC**), ISRO to effectively plan and monitor the Centre's flagship Clean Ganga Mission. This mobile app will provide a **platform for crowd sourcing to monitor pollution in river Ganga and enable decision makers to prioritise interventions**.
- It will be used as **a tool to support decision making and planning for the Clean Ganga Mission**.

FIRST ELECTRIC PLANE (BX1E) DEVELOPED BY CHINA

Features

- 14.5-meter wingspan and a maximum payload of 230 kgs
- Can fly at an altitude of 3,000 meters.
- Maximum speed of 160 km per hour.
- Uses: Pilot training, tourism, meteorology and rescue operations.

SECOND ROUTE FOR KAILASH-MANASAROVAR

In the latest confidence-building measure between the two neighbours, China opened the **second land crossing in Tibet via Nathu La** to allow the first batch of Indian pilgrims undertaking the arduous Kailash-Manasarovar Yatra,.

The **new route is in addition to the existing Lipulekh Pass**, the only route that was badly damaged in the floods in Uttarakhand in 2013. The route through Nathu La Pass will facilitate comfortable travel for Indian pilgrims by buses, especially for elderly Indian citizens, though conditions in the Himalayan region with less oxygen levels still pose a challenge.

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