**INSIGHTS SECURE-2016 SYNOPSIS COMPILATION- GS PAPER-3**

*Topic: Resource mobilization*

[**5) “In India, too few people pay taxes to fund an effective state that protects national security, administers justice, builds infrastructure and funds a social security net to protect people against sudden shocks to their income.” Why only handful are paying taxes? Why is it a matter of concern and what needs to be done to widen the tax net? Discuss. (200 Words)**](http://www.insightsonindia.com/2016/05/02/5-india-people-pay-taxes-fund-effective-state-protects-national-security-administers-justice-builds-infrastructure-funds-social-security-net-protect-people/)

[Livemint](http://www.livemint.com/Opinion/VMzprElzlNvkqRhFcy2xTN/The-case-of-the-missing-Indian-taxpayers.html)

[The Hindu](http://www.thehindu.com/todays-paper/tp-opinion/where-are-indias-taxpayers/article8545137.ece)

**Facts:**

* Around 48 million people filed income tax returns in fiscal year 2015 .The effective number is perhaps even less given the fact that many of them had zero tax liabilities. Now, compare the number of taxpayers with the 814 million people eligible to vote in the 2014 Lok Sabha election. This means that there is one taxpayer for every 16 voters—an asymmetry that has profound consequences for national policy.
* Barely a million Indians admitted to having an annual income of more than Rs.10 lakh a year—a transparently incorrect number. There is massive domestic tax evasion
* Only 2.9 crore Indians filed personal income tax returns for the assessment year 2012-13 — that is less than 4 per cent of the 760 million adults enumerated in the 2011 Census. More than half these 2.9 crore individuals paid no tax at all.

**Why only handful of Indians pay taxes?**

* The **Tax Administrative Reforms Commission reported**
	+ The **complete absence of economic, statistical, behavioral, or operations research-based analysis of policy or of taxpayers** prior to making major or minor legislative or subordinate legislation-based (rule-based) decisions
	+ Administrative decisions and tax policy making are both based on **nil analysis** by international standards.
	+ **No ‘impact assessment’** is carried out before introducing major legislative changes.
	+ Even changes in rules that Boards announce have no reference to what background analysis has preceded the decision.
* **Lack of Government efforts on widening tax base**as it concentrated more on increasing tax money. The social contract between the Indian people and the Indian state is seriously flawed.
* Most of the Indians still dependent on agriculture which makes most of them **out of the purview of tax slabs**
* India has around 90 % in to informal and **unorganised sector** which are outside the tax administration.
* **Domestic Tax evasion** is on rise as tax evaders do not get punishment because of governments inadequacy in tapping them and honest taxpayers get demoralized because of it.
* **Lack of proper tax administration** to identify the tax payers
* People get confused with the **complexity of the tax system**
* **Lack of comprehensive tax system**
* **Behavioral problem –**There are so many taxes to pay that people think it is better not to pay anything
* India is not under-taxed, given the fact that a quarter of its people live on the brink of **absolute poverty.**

**Why should that be a concern?**

* The very same **middle class**that is either calling for a strong state that can deal with threats to national security or for a redistributionist state that will fund social security programs, gives little thought to the very practical issue of where this money is going to come from.
* **Dependency on indirect taxes:**
	+ The paucity of direct taxes means there is a dependence on indirect taxes that are considered to be regressive rather than progressive. They put a higher burden on the poor.
	+ In 2015-16, direct taxes contributed only 51 per cent of the tax revenue, lower than in recent years (and even the government’s expectations) and the lowest since 2007-08.,
	+ **given that the poor generally spend a greater fraction of their income on essentials than the rich do, with wider indirect taxation,** they end up paying a higher individual tax rate than people considerably wealthier.
* The Indian state will be**fiscally constrained** with inadequate direct tax collections
* An uncomfortable position for an economy steadfastly trying to **scale up social and infrastructure investments** while maintaining a semblance of fiscal discipline. Maintaining fiscal discipline hinders**public investment**

**What needs to be done to increase the tax net?**

* Reform **like taxing large farm incomes and rationalising bounties enjoyed by the well-off, to widen the base**.
* **Introduction of Goods and Services Tax (GST)** is also expected to widen the tax base, lower tax rates, increase the compliance level and generate more revenues.
* **Recognising and rewarding honest tax payers:**
	+ A few benefits, such as priority in getting or renewing passports, driving licences or extra facilities at airports, should be offered to those paying taxes beyond a certain limit.
	+ Some other benefits like getting additional points during admission of their children to schools and colleges, or other government institutes or engineering colleges, etc., will also work well in creating an environment for increasing the compliance behaviour,
* **GAAR and direct tax code** need to be passed soon
* **Proper tax governance** by implementing  the recommendation of Shome panel for merging CBEC and CBDT
* **TAX method:**
	+ The banks can be instructed to freeze 10% of all remittances in the accounts of every individual and at the end of the year, based on the public profile of the individual
	+ the income tax payable can be assessed and deducted from the frozen amount and the balance either released or collected depending on whether the tax is less or more.
	+ This process removes many hassles such as mismatch between taxes due and deducted, cost of compliance by third parties in respect of tax liability of the individual, payment of advance tax and payment of interest on tax due or refunded.
	+ If the process of easy collection of taxes is to be outsourced it is better to **use the banking system**
* **Curbing black money,** by increasing the use of electronic money so that there is transparency in money transactions.
* People have to be educated that keeping their money in the bank is itself a great service to the nation.
* **The Tax Administration Reform Commission (TARC)** need to be implemented
* The way ahead has to be based on further tax reforms combined with better tax administration, so that more Indians pay income tax.

*Topic: Achievements of Indians in science & technology; indigenization of technology and developing new technology*

[**6) “The launch of a satellite for India’s own GPS shows Isro’s innovations are clearly the best Make in India products and, at the same, the most cost-effective space programme in the world.” Elaborate the statement and examine what qualities can other public sector undertakings can learn from ISRO to innovate and contribute productively to make in India mission. (200 Words)**](http://www.insightsonindia.com/2016/05/02/6-launch-satellite-indias-gps-shows-isros-innovations-clearly-best-make-india-products-cost-effective-space-programme/)

[Livemint](http://www.livemint.com/Opinion/jKaufXMBRvrTDZ9oSoH4NL/Isro-A-world-class-Make-in-India-example.html)

[The Hindu](http://www.thehindu.com/todays-paper/tp-opinion/selfreliance-is-the-key/article8545136.ece)

India successfully launched a satellite IRNSS-1G NAVIC which finally established the country’s own satellite navigation system—only four others, the US, Russia, China and the European Union, possess this capability in the world—or more familiarly, a global positioning system (GPS) of its own. And once again it did so on a shoe-string budget.

Earlier MARS mission-ISRO managed to do so at one-ninth of the $670 million spent by the United States National Aeronautics and Space Administration (NASA) on its own mission to Mars.

**What qualities ISRO exhibited that other PSU’s can learn for pushing Make in India to a success:**

* It exhibits the **ability to do with minimal resources**and also within low budgets.
* **Positive attitude despite some failures**:
	+ Indian companies should also take a cue from ISRO’s perseverance and sense of commitment in the face of hurdles like the GSLV was causing troubles but ultimately ISRO launched it successfully.
	+ Many companies are hesitant to spend money on R&D if they face a few failures,
* **Autonomy:**
	+ While operating within the framework of government rules (ISRO is part of department of space similar to any other in government), the Space Commission is a fully empowered body. It has the authority to make all financial and administrative decisions, barring those that are exceptional or of very high financial value
	+ This autonomy coupled with the fact that the PM is the minister of space, ensures there is no interference from politicians or other vested interests.
	+ ISRO works directly under the supervision of the Prime Minister as part of the Department of Space and is managed by  specialized technocrats rather than generalist bureaucrats.
	+ Contrast this with the ad-hoc manner in which Ministry of Defence operates and the arms length distance it keeps from the end users of defence products, i.e. the Indian Army, Air Force and Navy.
	+ The Ministry of Defence completely lacks a strategic intent and has failed to create a Defence Commission on the lines of Space Commission to formulate policies and oversee implementation.
* **No bureaucratic apathy:**
	+ ISRO is managed by professionals, with all functional decisions being made by them.
	+ The few bureaucrats within ISRO and department of space play an important, but supportive and service role, as opposed to a control function. The fact that the secretary is a space professional is an important element of this.
* **Collaboration**
	+ **Internal collaboration** among various groups and centres within ISRO is essential in developing any complex system or programme.
	+ The culture of collaboration is nurtured and ensured by structural arrangements, including a matrix management structure.
	+ This deepens domain expertise by ensuring that individuals work in and are guided by senior experts in their specialised area.
	+ Equally special is the **external collaboration with other government entities** (especially for programmes of applications of space technology) and with industry.
	+ The long-standing and extremely fruitful interface with corporates — many of which are partners, rather than mere vendors — bodes well for commercial exploitation of India’s space capabilities.
* **Accountability and transparency in ISRO’s work culture:**
	+ Individuals are also accountable to a project manager/director who integrates work across different domains to deliver a project
	+ The openness and freedom of speech that is particularly manifest during design reviews, where everyone is equal and **young junior engineers are free (and actually encouraged) to argue with their seniors and pick holes in their work**.
	+ undoubtedly owes a great deal to its rigorous and frank design reviews.
	+ secret clause enables DRDO to prevent a CAG audit into its projects shows the lack of transparency.
* **Vision, motivation and cutting-edge work**
	+ DRDO’s cost and time frame projected for indigenous projects are unrealistic, to the extent of being unprofessional in a few cases. Herein lies the major problem. that there was **a lack of clear vision and a set of objectives.**This is the case with other public sector organizations as well
* **Exceptional leadership and Management:**
	+ DRDO’s unsatisfactory success rate is result of poor leadership and  management which is not the case with ISRO
* It is important to celebrate even relatively small successes, especially in areas of science and technology, so as to motivate and inspire younger people to take up careers in such areas.

*Topic: Disaster management*

[**7) What are the causes of forest fires? How forest fire disaster should be managed? Examine. (200 Words)**](http://www.insightsonindia.com/2016/05/02/7-causes-forest-fires-forest-fire-disaster-managed-examine/)

[Reference](http://agritech.tnau.ac.in/agriculture/agri_majorareas_disastermgt_forestfire.html)

[Reference](http://nidm.gov.in/PDF/pubs/Forest%20Fire%202013.pdf)

[Livemint](http://www.livemint.com/Politics/fBzHeHQbZuKwLvcDlDlPAL/Uttarakhand-fire-IAF-undertakes-water-sprinkling-operations.html)

**Causes:**

Forest fires are caused by Natural causes as well as Man made causes

* **Natural causes-**
	+ such as **lightning**which set trees on fire.
* largely **related to climatic conditions** such as temperature, wind speed and direction, level of moisture in soil and atmosphere and duration of dry spells.
* Other natural causes are **friction between bamboos swaying due to high wind velocity and rolling stones** that result in sparks setting off fires in highly inflammable leaf litter on the forest floor.
* Dry forests are prone to fire in summers, e.g. Australian forests
	+ The **coniferous forest in the Himalayan region** comprising of fir (Albies spp), spruce (Picea smithiana), Cedrus deodra, Pinus roxburgii and P. Wallichiana etc. is very prone to fire.
* The most vulnerable stretches of the world to forest fire are the youngest mountain ranges of Himalayas. **With large scale expansion of chir forests** in Himalayan mountains, the frequency and intensity of forest fires have increased alarmingly.
* The recent forest fire in Uttarakhand is because of **high temperatures with no atmospheric moisture and lack of rainfall**
* **Man made causes-**
	+ Fire is caused when **a source of fire like naked flame, cigarette or bidi, electric spark or any source of ignition comes into contact with inflammable** material
	+ As well as **methods of forest management.**
	+ **Grazers and gatherers of** various forest products starting small fires to obtain good grazing grass as well as to facilitate gathering of minor forest produce like flowers of *Madhuca indica*and leaves of *Diospyros melanoxylon*
	+ **Shifting cultivation** (especially in the North-Eastern region of India and imparts of the States of Orissa and Andhra Pradesh).
	+ The **use of fires by villagers to ward off wild animals**
	+ Fires lit intentionally by people living around forests for recreation
	+ It has been estimated that 90% of forest fires in India are man-made

**Forest fire Management:**

**1.Strengthening of organizational framework**:

* Through **appropriate modification and alteration in State Forest Departments’ structural framework** and providing sufficient human power.
* **Financial support to States**– Provision of Aids/Loans from GOI to States/UT’s according to their action plan for Systematic Forest Fire Management.
* **Inclusion of Forest fire management in National Forestry Action Plan**– Sufficient mention of strategic Forest Fire Management in the document of NAFP
* **Revision of Indian Forest Act**– The relevant section of the Indian Forest Act needs to be revised to give due importance to legal protection against man-made forest fire.
* **Creation of a national forest fire control board**– With the task of supervising the control of devastating forest fire in exigencies in fragile areas like Himalayan zone, Western Ghats etc
* **Implementation of National Master Plan for Forest Fire Control:**This plan proposes to introduce a well-coordinated and integrated fire-management programme that includes the following components:
	+ Prevention of human-caused fires through education and environmental modification. It will include silvicultural **activities, engineering works, people participation, and education and enforcement.**
	+ It is proposed that more emphasis be given to people participation through**Joint Forest Fire Management for fire prevention.**
	+ Prompt **detection of fires** through a well coordinated network of observation points, efficient ground patrolling, and communication networks.
	+ **Remote sensing technology** is to be given due importance in fire detection. For successful fire management and administration, a **National Fire Danger Rating System (NFDRS) and Fire Forecasting System** are to be developed in the country.
	+ Fast initial attack measures.
	+ Introducing a forest fuel modification system at strategic points.
* Also designing and installing a network of fire forecasting at National and State levels in collaboration with the Meteorological Department.
1. **International coordination:**
* The FAO **has run a special TCP project program in the country under which main emphasis was given to human resource development in forest fire management.**
* **Organising seminars, training programs**, conferences, and study tours in different countries leading in Forest Fire Management, e.g., U.S.A., Australia, U.K., Spain, France, etc.

**3.Technology:**

* In addition to the ongoing schemes for forest fire management, the Government is also considering for setting up of a **National Institute of Forest Fire Management with satellite centres in different parts of India with an objective to bring the latest forest fire fighting technologies to India** through proper research, training of personnel
* **Effective fire fighting tools and machinery-** Provision of modern and effective tools and machinery e.g. Fire Beater, Forest Fire Showel, Pulaskis Tool, Fire Rake, McLeod Tools, Brush Tools, Power Blowers, Back-Pack Pump Sets, Fire Tenders etc

**4.Training and education**:

* Designing syllabus for planning, management, ground level firefighting courses in Forestry Institutions.

**5.Alerts:**

* India is working on a new system of issuing pre-fire alerts to prevent such incidents.

**6.Research and development**:

* by strengthening the existing and introducing new R&D institutions dealing with forest fire management.

**7.Institution of National Awards**:

* Institution of Gallantry Awards for exemplary works in forest fire prevention, protection, and suppression.

**8.Promotion of people’s participation:**

* Through involvement of NGOs, Voluntary Organisations, Village Forest Committees (VFCs) etc.

**Fact :**

* According to environment ministry data, a total of 18,451 incidents of forest fires were reported from across the country in 2013, compared with 19,054 in 2014 and 15,937 in 2015. This year has seen a jump in such instances, with at least 20,667 fires already reported as on 21 April.

*Topic: Prevention of money laundering; Indigenization of technology*

[**4) Since independence, many governments have been accused of following corrupt practices in defence procurement. Why corruption in defence procurement still persists? How can it be addressed? Examine. (200 Words)**](http://www.insightsonindia.com/2016/05/03/4-since-independence-many-governments-accused-following-corrupt-practices-defence-procurement-corruption-defence-procurement-still-persists-can-addressed-examine/)

[The Hindu](http://www.thehindu.com/todays-paper/tp-opinion/arms-and-the-middleman/article8548787.ece)

[Business Standard](http://www.business-standard.com/article/opinion/murky-defence-deals-116050201309_1.html)

**Why Corruption in Defence procurement ?**

* **Middlemen:**
	+ As India grew in its status as a moneyed shopper in the international arms bazaar, middlemen and shady operators all began to crowd into New Delhi.
* **No punishment for accused:**
	+ That was the case in the jeep scandal, and that was the case in Bofors, HDW scandals and after the Tehelka exposé.
* **Failure of investigative agencies:**
	+ Singular inability of the government’s chief investigation agency, the Central Bureau of Investigation, to secure a conviction
	+ For instance:the Central Bureau of Investigation (CBI) closing the German submarine maker HDW’s case for lack of evidence even though officials told the Indian ambassador that they paid 7 per cent commission to middlemen in a deal to supply submarines to the Indian Navy.
	+ More serious is **CBI’s institutional vulnerability to overt and covert political pressures.**Since all the deals involve the government, it is inconceivable that money trails cannot be traced.
	+ Despite the complexity of the cases, **none of our investigation agencies have cared to develop any significant skills** in tracking global financial transactions, especially where it involves tax havens, shell companies and proxy directors.
	+ The outrage that accompanies initial claims is absent and **there is no public scrutiny when CBI and other agencies finally give up.**
* **Tax haven problem:**
	+ All defence scandals have an international dimension to them. Though the money paid originates from the government exchequer, it is paid abroad, and commissions are distributed across secretive tax havens.
	+ it is also true that the world of arms dealing is scarcely transparent and pay-offs mostly involve complex deals in offshore tax havens which make it notoriously difficult to follow the money.
* **Black money**, including that from arms deals, has a powerful role in Indian politics. Political parties, except for a couple of exceptions, suck in massive amounts of black money to sustain their operations. **Arms deals continue to be a key source of such illegal funding.**
* **Transparency international-**Citing an example, the report says awards for contracts by Riflex, the paramilitary force in north-east India, were essentially bought through personnel for kickbacks amounting to 35 per cent of the tender cost.

 **Suggestions to remove that :-**

* India must stop being the world’s largest importer of arms and take a strategic turn towards**indigenous procurement.** To create a robust military-industrial complex in India, a restructuring of its engineering curriculum, its procurement procedures, military research systems, etc. are required.
* **Strengthening DPP:**
	+ India also drew up a comprehensive **Defence Procurement Procedure (DPP),** and made “integrity clause” a must for all deals.
	+ In a bid to prevent corruption in relatively smaller defence deals, the government has brought contracts of the value of Rs 20 crore under the ‘integrity pact’— a biding document that enables heavy penalties for bribing.
	+ If found to be practising wrongdoings, the companies will lose their security deposits or bank guarantees,
* India **needs a designated body tasked with responsibility over ethics**or anti-corruption within the ministry of defence. There is need for the Inspector General position.The Public Accounts Committee, the  CAGhave held the MoD to account for the illegal use of land for private golf clubs.
* **Legalizing middlemen:**
	+ **Legally, middlemen** do not exist in India in the field of arms procurement.
	+ Legalizing middlemen, argue experts, does away with the need for secrecy as well as the wheeling-dealing that is currently responsible for much of the dirt associated with arms deals.
	+ India will end up spending at least Rs.5,00,000 crore in the international arms bazaar in a decade, which means that at least Rs.50,000 crore, by bazaar estimates, could be the commission available to middlemen to grease palms.
* **Strengthening DRDO** and removing clauses like secret clause where CAG auditing is not allowed
* Painful decisions, including abandoning some ongoing expensive procurements from abroad, are important to help push Indian private sector into the procurement cycle.
* **Make in India**needs to be effectively implemented

*Topic: Resource mobilization*

[**5) What do you understand by divestment? What has been the objective and nature of divestment policy in India? Considering present economic situation, what should be the objectives of divestment policy? Discuss. (200 Words)**](http://www.insightsonindia.com/2016/05/03/5-understand-divestment-objective-nature-divestment-policy-india-considering-present-economic-situation-objectives-divestment-polic/)

[Livemint](http://www.livemint.com/Opinion/ZxVQBVNoq8UbqDwVhCMY6M/Divestment-More-than-just-revenue.html)

**What is divestment ?**

* At the basic level disinvestment involves the conversion of money claims or securities into money or cash.Disinvestment can be defined as the action of an organisation (or government) selling or liquidating an asset or subsidiary. It is also referred to as ‘divestment’ or ‘divestiture.’
* In most contexts, disinvestment typically refers to sale from the government, partly or fully, of a government-owned enterprise.
* A company or a government organisation will typically disinvest an asset either as a strategic move for the company, or for raising resources to meet general/specific needs.

**Objectives of the present policy:**

* To reduce the financial burden on the Government- additional resource needs for containing the fiscal deficit and capital expenditure generated.
* To improve public finances
* To introduce, competition and market discipline in PSUs’ decision-making
* To fund growth
* To encourage wider share of ownership
* To depoliticise non-essential services
* The role of the government versus the market was sought to be redefined
* loss-making public enterprises were sought to be revived

**Nature of the present policy :**

However, over the years, the policy of divestment has increasingly **become a tool to raise resources to cover the fiscal deficit** **with little focus on market discipline** or strategic objective. Keeping with the tradition, this year’s budget has set the total target for divestment for 2016-17 at Rs.56,500 crore.

**What should be the objectives ?**

* **Divestment should not be limited for raising revenues:**
* Divestment is an important aspect for improving the structure of incentives and accountability of PSUs in India.
* It is the approach towards divestment that defines the incentive for any PSU to run efficiently. **An ad-hoc approach towards divestment only reduces the incentive for the firm’s managers to make significant investment in the enterprise**.
* Therefore, it is essential for PSUs that divestment is not limited to raising revenues. The Fourteenth Finance Commission in its report underlines this point by suggesting various measures to modify the divestment policy.
* **Government should focus on strategic sectors:-**
	+ The primary requirement for the divestment policy is to define the priority sectors for the government based on its strategic interests. Considering the limited resources with the government and its diverse role, it is evident that the government has a low capacity to manage PSUs.
	+ **The government should, therefore, exit non-strategic sectors** such as hotels, soaps, airlines, travel agencies and the manufacture and sale of alcohol.
	+ The outlook towards strategic divestment **should move from the current policy of emphasizing on public ownership and retaining majority shareholding to looking at the strategic interest.**
	+ As per the current divestment policy, government has to retain majority shareholding, i.e., at least 51% and management control of the PSUs. The policy thereby **limits the scope to create divestments that would allow easy exit for the government from non-strategic sectors**.
	+ Even strategic investment as per the department for divestment is limited to less than 50% shares and management control. **Merely allowing ownership of less than 51% will be the first step in the right direction.** Eventually, the objective of divestment should be to limit the government ownership to strategic sectors.
* It is important to realize that **ownership is not a substitute for regulation.** Therefore, instead of creating PSUs in non-priority sectors, **the government should look into strengthening the regulatory framework that ensures efficient market conditions**. In fact, **regulation should be extended to both public and private entities**.
	+ For instance, Air India, India’s flag carrier airline, was a monopoly for long. With increasing competition after sector being liberalized there was no need for the government to run the airline .
	+ Hence, the government should consider exiting the airline business and instead **create regulations that would ease the entry of new players**. The regulations should also ensure that the basic necessities of the consumers are met.
* It is time that divestment is **not seen as an option to cover for short-term fiscal gains**; instead, it should be **part of a strategic plan to improve the production of goods and services in India.**

*Topic: Achievements of Indians in science & technology*

[**6) Discuss the significant contributions made by Indians to the field of mathematics. (200 Words)**](http://www.insightsonindia.com/2016/05/03/6-discuss-significant-contributions-made-indians-field-mathematics/)

[Livemint](http://www.livemint.com/Opinion/d3ddePsFMHKZhHLmx1jAxL/The-men-who-knew-infinity-Indias-lost-history-of-mathemati.html)

**Baudhayana’s *Śulbasūtras*:**

* The Pythagoras theorem, however, finds a place in Baudhayana’s *Śulbasūtras*, which dates back to about 800 BC—more than 200 years before Pythagoras was born.

**Aryabhata:**

* The first comprehensive use of the place value system of arithmetic was found in *Āryabhaṭīya*(499CE), a famous work of Aryabhata.
* The trigonometric function “sine” traces its origin to *jya-ardha*series, a table of half-chords of a unit radius circle, compiled by him.

**Varahamihira:**

* He improved the accuracy of Aryabhata sine tables.
* He included the discovery of many trigonometric formulae
* Was among the first mathematicians to discover a version of what is now known as Pascal’s triangle

**Brahmagupta:**

* The most significant contribution of Brahmaguptawas the introduction of zero(0) to the mathematics which stood for “nothing”.

**Bhaskara I**

* Bhāskara was the one who declared that any number divided by zero is infinity and that the sum of any number and infinity is also infinity. He is also famous for his book “Siddhanta Siromani”.

**Bhaskara II:**

* Pell’s equation, attributed by 18th century Swiss mathematician Leonhard Euler to 17th century English mathematician John Pell was originally solved by Bhaskara II, a 12th century Indian mathematician-astronomer.

**Madhava:**

* Similarly, much of the work on calculus was done in India by the Kerala School of Mathematics—much before Isaac Newton and Gottfried Wilhelm Leibniz came into the picture—founded by Madhava in the 14th century CE

**Srinivasa Ramanujan:**

* is one of the celebrated Indian mathematicians. His important contributions to the field include Hardy-Ramanujan-Littlewood circle method in number theory,
* Roger-Ramanujan’s identities in partition of numbers, work on algebra of inequalities, elliptic functions, continued fractions, partial sums and products of hypergeometric series.

**Calyampudi Radhakrishna Rao**, popularly known as C R Rao is a well known statistician, famous for his “**theory of estimation”.**

**D.R. Kaprekar (1905-1988) :**

* Well known for “Kaprekar Constant” 6174.
* Take any four digit number in which all digits are not alike. Arrange its digits in descending order and subtract from it the number formed by arranging the digits in ascending order. If this process is repeated with reminders, ultimately number 6174 is obtained, which then generates itself.

**Narendra Karmarkar :**

* India born Narendra Karmarkar, working at Bell Labs USA, stunned the world in 1984 with his new algorithm to solve linear programming problems. This made the complex calculations much faster, and had immediate applications in airports, warehouses, communication networks

*Topic: Mobilization of resources*

[**4) It is said that increases in social sector will cause the fiscal deficit to increase, which is seen as unacceptable in policy circles. To address various problems presently faced in rural regions and by weaker sections, increased spending is suggested. From where does government can mobilize money? If at all it doesn’t have money, where is it going? Critically examine. (200 Words)**](http://www.insightsonindia.com/2016/05/04/4-said-increases-social-sector-will-cause-fiscal-deficit-increase-seen-unacceptable-policy-circles-address-various-problems-presently-faced-rural-regions/)

[The Hindu](http://www.thehindu.com/todays-paper/tp-opinion/the-indirect-benefits-transfer/article8553020.ece)

**From where does government mobilise money.These are also the sources government looks when it does not have money:**

* To provide the **necessary increases in public spending is to increase government revenues, and especially direct tax revenues** in particular provide the obvious mechanism.
* **Removing the loopholes in the tax system**-tax system provides many tax breaks and incentives to rich individuals and companies, that allow them to avoid paying the full tax rate.
* By increasing **Personal income tax collection** is similarly inadequate. The data show that the number of individual tax assessees was only 48.6 million in 2014-15, just 6 per cent of the estimated adult population of around 800 million in that year.
* Rationalising the subsidy regime will provide revenues for social sector spending.
* **Taking loans from international organizations** like Asian Development bank, World bank etc.,
* **Gold monetization scheme**
* When there is an overall budget deficit of the Government, it has to be financed by either
	+ **borrowing from the market**
		- This causes the aggregate demand of the community to rise to a greater extent than the actual amount of deficit financing undertaken through the operation of what Keynes called income multiplier
		- Government borrowing from the market to finance fiscal deficit adds to the public debt and increases burden on future generations on whom heavy taxes have to be imposed for repaying the loans.
	+ **from the Reserve Bank of India:**
		- RBI has the power to create new money, that is, to issue new notes. Thus, to finance its fiscal deficit, the government may borrow from Reserve Bank of India against its own securities.
		- This is only a technical way of creating new money because the government has to pay neither the rate of interest nor the original amount when it borrows from the Reserve Bank of India against its own securities.

*Topic: Economic growth; Employment*

[**5) How can India better its job creation for every percentage point of GDP growth, a ratio on which it significantly lags behind most other emerging economies? Examine. (200 Words)**](http://www.insightsonindia.com/2016/05/04/5-can-india-better-job-creation-every-percentage-point-gdp-growth-ratio-significantly-lags-behind-emerging-economies-examine/)

[The Hindu](http://www.thehindu.com/todays-paper/tp-opinion/a-job-for-every-indian/article8553017.ece)

**Facts:**

* The Labour Bureau has compiled statistics for job creation in labour-intensive sectors in the country each quarter since the 2008 global financial crisis. The latest figures show that 1.35 lakh jobs were created in 2015, the lowest figure by far of any year since then — lower than the 4.9 lakh new jobs in 2014 and 12.5 lakh in 2009
* A report outlining the NDA’s vision, *Transforming India*, released by the Department of Administrative Reforms last month, says 175 million new jobs could be created by 2032 if the economy grows by 10 per cent annually; the figure is 115 million if it grows by 7 per cent.

**What should be done?**

* To create jobs,the above report proposes **tax incentives and interest subsidies** for firms creating jobs and some blue-sky interventions to invigorate sectors.
	+ For instance, negotiate free trade pacts with major markets such as the European Union and the U.S. to boost textiles, improve regional air connectivity for tourism, and so on.
	+ This year’s Budget offers to pay 8.33 per cent of the salary (as contribution for a pension scheme) for new employees getting formal sector jobs
* **Appoint a National Jobs Adviser to the Prime Minister in the PMO:**
	+ The Adviser would align job growth planning with economic planning; ensure integration of the multiple but job related policies across central ministries, as well as with the states; enable sharing of best practices between states, and provide a liaison between government and the private sector.
	+ Most importantly, the Adviser would monitor actual outcomes for quick mid-course policy corrections as needed.
* **Create a vast, integrated, national ecosystem for entrepreneurship education, mentoring and support.**
* **Make it easy for startups:**
	+ To actively contribute to India’s growth trajectory, we need a million startups with growth potential, with many of these outside the tech sector. ‘Startup India’ addresses many but not all the needs of entrepreneurs.
	+ Access to a national network of mentors and angel investors; and easy access to government procurement opportunities with simplified rules are essential.
	+ Policies that incentivise private investors to provide long-term equity and debt capital to startups are critical.
* **Enable growth in existing Small & Medium Enterprises (SMEs):-**
	+ SMEs are the growth backbone of any nation and primary drivers of job growth.
	+ **India’s archaic classifications of micro, small and medium businesses, based on invested capital, need to be scrapped** and policies need to encourage every business to grow to become a medium business, or larger, creating a more dynamic economy and more jobs.We need to establish SME ecosystems for high-value manufacturing, for example to support defence and railways. We need to attract long-term investors to invest in SMEs, not just startups.
* **Launch a major Startup & Small Business Innovation Initiative (SSBI):**
	+ Some 40 years ago, the US launched ‘Small Business Innovation & Research’ initiative wherein various government departments allocate funding for innovation by SMEs, selected through an open, competitive process. This has helped create thousands of new companies and millions of new, quality jobs.
* **Create a technology platform that enables startup and SME growth:**
	+ This would provide the technology and knowledge infrastructure that powers all of the proposed startup and SME initiatives: enable digital/ mobile delivery of interactive curriculum and content to entrepreneurs, innovators; and connect them to mentors, angel investors and other key ecosystem participants.
	+ New business ideas, business plans, innovation grants, market data could all be easily accessed and exchanged on this platform; creating data for research and policy analysis.

India needs a holistic action plan that covers every base — one that includes a skilling and re-skilling programme to increase employability and productivity, incentives for smaller enterprises that absorb a greater number of workers, and the embedding of job generation in the massive infrastructure upgrade that India requires. Jobs must be the pivot for social and economic policy.

*Topic: Infrastructure – Ports*

[**6) The Indian port sector plays a vital role in sustaining growth in the country’s trade and commerce. What are the problems faced by ports sector in India? What measures have been taken to address them? Examine. (200 Words)**](http://www.insightsonindia.com/2016/05/04/6-indian-port-sector-plays-vital-role-sustaining-growth-countrys-trade-commerce-problems-faced-ports-sector-india-measures-taken-ad/)

[The Hindu](http://www.thehindu.com/todays-paper/tp-opinion/facilitating-trade-in-indian-ports/article8553021.ece)

**Problems faced by port sector in India :-**

* A recent study by the Bureau of Research on Industry and Economic Fundamentals (BRIEF) titled ‘Bridging Infrastructural Deficits at Select Trade Ports in India’ observed that seaports displayed specific patterns of issues based on differences in geography, infrastructural capacity, operational aspects, contractual arrangements, and so on.
* For instance, the Haldia Dock Complex in Haldia, West Bengal, being a riverine port, faces the**natural challenge of heavy siltation and inadequate dredging capacities**.
* The issue of **semi-mechanisation and manual handling of critical processes** having a cascading effect on overall operational efficiency is evident at another eastern port — the Paradip Port in Odisha.
	+ The process of unloading from ships to evacuation through rakes entails the use of outdated equipment cranes and grabs with low-evacuation capacity and is **impeded with operational glitches** such as the process of manual loading of cargo on rakes.
* **Congestion at the approach roads** is a common problem observed at quite a few Indian port like the Jawaharlal Nehru Port in Maharashtra.
	+ The study findings report heavy congestion en route to the port as well as inside the port, leaving trucks stranded for days — with queues extending to as long as 12 km — thereby leading to inordinate delays and increased transaction costs.
* Some of the ports provide insights into **certain regulatory and policy aspects that deserve attention.**
	+ For example, the royalty/revenue share issue at the V.O. Chidambaranar Port (VOCPT) can be seen as a classic example providing incisive details as the country takes forward its port privatisation programme in the years to come.
	+ The prolonged tryst between the terminal operator and the port authorities over royalty coupled with contractual ambiguities has continually **marred infrastructural utilisation, restructuring and modernisation** as well as operational improvements at the terminal.
* **Underutilisation of physical infrastructure** in particular though is extremely prevalent at another private terminal — the Vallarpadam International Container Transhipment Terminal — at the Cochin Port.
	+ The major issue faced at the port, however, **is its tariff structure**. The tariff determined for the port by the Tariff Authority for Major Ports (TAMP) was reported to be almost three times that of other major ports, which renders the port uncompetitive

**Measures taken so far :-**

* **Sagarmala programme**-leads to port led development ,improve coastal economy,modernize ports and integrate them with SEZ.it reduces the logistic costs of shipping
* Industrial clusters are being created along the coast.
* **Port rail connectivity corporation** has been created with the responsibility of connecting industrial hubs to various ports by trains.
* **Make in India** gives impetus to the ship building industry
* **Port mechanization and modernization programme** in order to enhance port infrastructure.
* Recognising the important role port-led development can play in India, the Central government has undertaken several initiatives such as development of new ports, modernisation and mechanisation of the existing ones, and reduction of logistics costs through the implementation of increased waterways transport. These are also in line with the vision of initiatives such as ‘Make in India’.

**Measures needed:-**

* In terms of**infrastructure**, it is important to maintain **draft to serve bigger vessels, ensure mechanisation of ports through introduction of new equipment and procedures**, build new facilities, upgrade existing facilities and automate systems/procedures.
* In terms of **policy and regulatory reforms**, it is important to streamline tariff determination by TAMP along with a provision for periodic revisions
* ensure **transparent and effective contractual arrangements in PPPs**
* implement strengthened communication platforms for seamless information flow among stakeholders
* strengthen system integration, ensure paperless clearance of procedures and transactions, develop user information portals, and so on.

Apart from reviving the ports currently operational, these measures, if duly incorporated, promise to sufficiently bolster prospective ventures as the country moves towards an optimistic maritime trade regime.

*Topic:Major crops cropping patterns in various parts of the country*

[**6) “It is time India switched its policy focus to the efficiency of water use rather than adding to the food mountain. One key element of this switch should be greater incentives for the cultivation of pulses as well as millets.” Discuss why. (200 Words)**](http://www.insightsonindia.com/2016/05/05/6-t-time-india-switched-policy-focus-efficiency-water-use-rather-adding-food-mountain-one-key-element-switch-greater-incentives-cultivation/)

[Livemint](http://www.livemint.com/Opinion/JddVSKnCcW291DXHHrgwwJ/The-pulse-of-Indias-agrarian-economy.html)

**Reasons why Pulses cultivation need to be encouraged are:**

* Average water footprint for five major crops—rice, wheat, maize, sugarcane and cotton—is far higher than global averages.
* India is a large virtual net exporter of water because of agricultural products like cereals,tea, coffee , sugar etc which all require vast amounts of water .
* In 2014-15 India exported 372 lakh tons of basmati which required 10 trillion tons of water I.e.., India virtually exported 10 trillion litres of water
* The severe drought across India should hopefully help focus attention on the overuse of water in agriculture which can be cured a little by pulse cultivation.
* **pulses as well as millets—not just because they use less water for every unit of output but also as a weapon in the fight against hidden hunger**
* Domestic demand for pulses has anyway shot up in tandem with growing incomes. It is no secret that **the rising prices of these pulses are not only a big contributor to high food inflation** .
* **No transparent system of price discovery** through unified agricultural markets and revival of systems such as forward and futures markets with adequate risk management provisions.
* **Pulses are rich in proteins** and found to be main source of protein to vegetarian people of India.
* It is **second important constituent of Indian diet** after cereals.
* They can be **grown on all types of soil and climatic conditions.**Pulses being legumes fix atmospheric nitrogen into the soil.
* They **play important role in crop rotation**, mixed and intercropping, as they help**maintaining the soil fertility**.They add organic matter into the soil in the form of leaf mould.
* They are helpful for **checking the soil erosion** as they have more leafy growth and close spacing.Some pulses are turned into soil as green manure crops
* They provide raw material to various industries.Ex. Dal industry, Roasted grain industry, Papad industry etc.
* India is losing precious forex (nearly $2.3 billion) while importing pulses from players such as Canada and Australia
* The lack of drought- and disease-resistant varieties of pulse seeds is alarming.
* Low genetic yield of Indian pulses and their vulnerability to pests and diseases is a major hindrance to adoption of pulses by farmers.

**What is needed ?**

* Government should consider **doing away with export duties on pulses**. This will prompt farmers to produce more for both the domestic and foreign markets.
* Recently the Maharashtra government has taken steps to help farmers move away from crops that use water intensively.
	+ It will make it more attractive for farmers to grow pulses **by offering to pay a guaranteed price that is 5-10% higher than the central minimum support prices (MSPs) for pulses**, as well as provide free seeds and fertilizers to farmers who grow pulses.
* Effective implementation needed:
	+ The centre has issued an early directive to the states to project pulses demand and keep hoarding in check.
	+ To prevent another full-**fledged pulse crisis, a sum of Rs.500 crore was allotted to pulses under the National Food Security Act, and a Price Stabilisation Fund with a corpus of Rs.900 crore was made in this year’s budget exclusively for pulses**.
	+ Three agencies—Food Corporation of India, Small Farmers Agri-Business Consortium and National Agricultural Cooperative Marketing Federation of India Ltd—purchased more than 50,000 tonnes of pulses from farmers as buffer stocks during the fiscal year.

The centre and states would also do well to simultaneously focus on insuring farmers, raising yields within water constraints, enhancing food processing and storage facilities and abandoning export controls. A shift in the highly skewed cropping pattern of the country is the need of the hour.

**Facts:**

* Pulses in India recorded less than 40 per cent growth in production in the past 40 years while its per capita availability declined from 60 grams a day in the 1950s to 35 grams a day in the 2000s.

*Topic: Major crops cropping patterns in various parts of the country,*

[**7) What is wheat blast? What are its threats? Recently wheat crop in India was said to be under threat of wheat blast. What measures should government take? Examine. (200 Words)**](http://www.insightsonindia.com/2016/05/07/7-wheat-blast-threats-recently-wheat-crop-india-said-threat-wheat-blast-measures-government-take-examine/)

[Business Standard](http://www.business-standard.com/article/economy-policy/wheat-blast-at-india-s-doorsteps-govt-says-no-need-to-panic-116050700040_1.html)

**Wheat Blast:**

* It is caused by the **‘Magnaporthe oryzae’ fungus,** the one which causes Rice Blast. The fungus is known to occur in 85 countries worldwide.
* Wheat Blast was first identified in 1985 in Brazil and has thereafter spread to Bolivia and Paraguay. It has become a dreaded agricultural disease for South America.
* It can cause more than 75 % yield loss in affected fields, rendering the region non-cultivable for wheat
* Bangladesh first detected the disease some months earlier and notified it in the first week of April
* Bangladesh has so far burnt down standing wheat crop in 15,000 hectares to control the disease.,
* It thrives in hot and humid climates.

**Threats by wheat blast :**

* First sighted in Brazil in 1985, blast is widespread in South American wheat fields, affecting as much **as 3 million hectares in the early 1990s** and seriously**limiting the potential for wheat cropping**on the region’s vast savannas.
* A **wider outbreak could be devastating for South Asia**, where 300 million malnourished people consume over 100 million tonnes of wheat each year.
* The **pathogen can be spread by seed and also survives on crop residues.** Currently, most varieties being planted are susceptible and fungicides have not been effective in controlling the disease.
* Fungus is so physiologically and genetically complex that, after more than three decades of research, it **is still not understood how it interacts with wheat** or which genes confer durable resistance.
* **Strikes directly to shrivel and deform wheat grains, leaving farmers no time to act.**Grows on numerous other plants and crops, so rotations can only partially control it. **Fungicides provide only a partial defense**, are often hard to obtain or use in blast areas, and must be applied before symptoms appear.
* Outbreaks are occasional and hard to predict, making it more difficult to make preparations or breed resistant varieties.

**Situation in India:**

India’s wheat crop faces potential danger from a disease lurking across its eastern border in Bangladesh, where it has led to the burning down of standing crop in 15,000 hectares.India already has Blast-resistant varieties and Its record shows that Indian wheat has not been impacted by any major epidemic in the past four decades.

**Measures that are needed:**

* **Improve wheat varieties that carry genetic resistance to M. oryzae.**
* **Global monitoring of disease appearances**, movement, and evolution, in coordination with local governments and research agencies, as well as predictive models.
* Advanced studies on potentially effective, safe, and affordable chemical control measures.
* **Genetic and epidemiological research** to strengthen knowledge of the fungus and its interactions with wheat and other host plants.
* The government has taken the development seriously and might consider directing eastern states of West Bengal and Assam to stop farmers from cultivating wheat in border areas, if Bangladesh fails to contain the disease.
* The government might even ban import of wheat from Bangladesh.
* **Application of field pathogenomics**:Application of this method to wheat blast should unmask the pathogen in Bangladesh and contribute to a response plan.
* In an emergency like this one, **the community must come together to share data and compare notes**. Only then, we will determine the true identity of the pathogen and put in place effective measures in a timely fashion.

*Topic: Indian economy – growth; Resource mobilization*

[**7) “The “free market” has not benefited the customers—both the borrowers and the depositors—as much as it should have because of an extremely restrictive entry policy in the banking space. There is an inherent contradiction in the coexistence of a free market and a repressive banking system in India.” Elaborate the statement and examine if things are changing for the better. (200 Words)**](http://www.insightsonindia.com/2016/05/09/7-free-market-not-benefited-customers-borrowers-depositors-much-extremely-restrictive-entry-policy/)

[Livemint](http://www.livemint.com/Opinion/hjEGaVgAg8K5Oxtv2kUUgO/A-revolution-in-Indian-banking.html)

Free market has not benefitted Indian customers,borrowers and the depositors especially in the light of repressive banking system because of the following reasons:-

* **Monopoly of Some banks:**
	+ Public sector banks still have 70% of the market share leading to very less competition and accountability. Also One of the core objectives of the banking system is the **financial inclusion has been neglected because of this.**
* **Not many banks were formed since independence .**This led to limited options for the customers and depositors.The entry of corporates into banking system has been looked from suspicion mostly which is reiterated by the tedious process they need to fulfill to form the bank. Till 2014, in 67 years since India’s Independence, we had got 13 new banks in three phases and all have not survived.
* The **attitude of the banks** to lend loans for the high profile people irrespective of their paying back capacity led to loss of trust in the banking system. This has also led to increase in non performing assets.
* No substantial loaning for the most needed sectors **like infrastructure** because of the conservative system of giving loans.

**However RBI has embarked the task of changing this scenario in India.The recent measures show the intent of RBI:**

* The scene has changed dramatically when it allowed white label ATM’s in India.Along with that in 2015 Bandhan Bank Ltd was launched, the first instance of **a microfinance institution (MFI) converting itself into a bank**. IDFC Bank Ltd followed later.
* Around that time, RBI gave **conditional licences to 10 small finance and 11 payments banks**
* RBI expressed its intention **to allow wholesale banks and custodian banks** to come up
* It released draft guidelines for **‘on-tap’ licensing of private sector universal banks** which will have the following impact:
	+ ‘On-tap’ licensing will ensure that every ‘fit and proper’ candidate is allowed to float a bank. it will revolutionize the financial system in Asia’s third largest economy.
	+ As competition intensifies, the informal cartelization of banks to deny benefits of free savings rate will break and loan rates too will come down.
	+ India’s government-owned banks, which account for about 70% of assets, will lose their market share.A pile of bad loans, lack of capital and inefficient board and top management in some cases, among other things, will shrink business opportunities for them. Which is why both the government as well as the banking regulator have been pushing for consolidation among public sector banks.
* Finally, it is now clear that India is moving into a bank-led financial system. Eight of the 10 licences for small finance banks were given to MFIs. Barring a couple, all large MFIs will transform into banks.
	+ Relatively small MFIs and NBFCs will continue in different niches but, overall, the banks will dominate the financial system and the regulatory arbitrage between banks and non-banks will end

**What needs to be done?**

* The idea of allowing individuals and professionals with 10 years of banking experience to promote banks and keeping large business houses out of it .RBI can allow non-resident Indians and firms controlled by foreigners float banks with necessary check points as they can bring in capital, skill, technology, modern products and processes and innovations.
* Wiser with giving 35 banking licences in the past two-and-a-half decades banking regulator can take the onus on itself to pick the right candidates instead of forming a committee everytime it thinks about the licensing process.
* Implementing unified payment interface.
* Measures to enhance financial inclusion need to be strengthened then only India can reap the benefits of free market.

*Topic: Economic growth – employment*

[**7) Do you think automation and machines will end human jobs? Critically discuss. (200 Words)**](http://www.insightsonindia.com/2016/05/10/7-think-automation-machines-will-end-human-jobs-critically-discuss/)

[Livemint](http://www.livemint.com/Opinion/w1BwxcnIVEYHwAaCvBA1cK/Automation-cannot-end-human-jobs.html)

**Yes,Automation is detrimental :**

* It is now widely accepted that technological advances, especially ones that make machines more like humans such as **artificial intelligence** are putting people out of work and will destroy more jobs in the future.
* **advances in productivity, mainly driven by the development of digital technology**, and the resulting economic growth, **no longer cause employment and workers’ incomes to rise**
* In the past decades, computers, cash machines and self-serve pumps have **largely replaced**secretaries, bank tellers and gas station attendants, respectively.
* Google, Uber and Tesla are all working on **self-driving vehicles**, beginning with **t**hose that make long-haul journeys
* Technology created jobs tend to be concentrated in cities like London, San Francisco, New York and Stockholm, which **drives up prices, creates inequality and makes it difficult for people to live in or move to places where new jobs are emerging**.
* Coming years will likely only see this problem intensify, as jobs that involve **any kind of routine or repetitive work** – mental or physical – are **i**ncreasingly at riskof being ousted by automation.
* As X-rays and other medical records are digitised and computer algorithms become better at interpreting them, radiologists, for example, find themselves collaborating with machines, **acting more as fact checkers than as medical sleuths**
* **Jobs that used to be very complex, idiosyncratic and interesting start to look more like computer operator jobs**, just putting in data and interpreting screen readouts.
* innovation is boosting pay for highly skilled workers while having a more **negative impact on those with low to medium skills.**

**No:**

* Employment declines in step with the working-age population. Productivity and employment are never coupled.
* **Incomes stopped growing because of increased inequality within occupations,** not because technology wiped out jobs in middle-wage professions.
* The people at the top of the income distribution aren’t all bankers or tech gurus. Seven per cent of the top 1% of earners are lawyers, another 7% doctors, 3% work in insurance and real estate.**Technological disruption doesn’t explain the rise of the top 1% and the lack of median income growth.**
* allowing machines to take over whole industries can only work without disturbing social peace if governments invest in training people for old-fashioned professions. **Someone will need to make all those artisanal products that machine-owners will crave.**
* It’s a **matter of matching skills to a shifting demand pattern**, driven by technology change—and by people’s need to feel human in a world of machines.
* When Google’s search engine began gaining momentum a decade or so ago, for example, fears abounded that librarians would be rendered obsolete. **Instead, openings for librarians actually increased, although new skills were needed to excel at the job**
* So far, **humans are vastly superior at any work that relies on creativity, entrepreneurialism, interpersonal skills and emotional intelligence**. Jobs that fall into these categories – including clergymen, nurses, motivational speakers, caretakers, trainers, entertainers and more – will probably fare well in a more automated world

**What needs to be done ??**

* **Some countries, industries and companies are responding to these changes better than others.**
	+ On one end of the spectrum regulatory regimes can prevent innovation, as **France is doing**with the recent ban on Uber. On the other hand,
	+ some places are aggressively pursuing innovation. In Germany, 1.5 million people enrol in paid apprenticeships annually, emerging from the programmes as highly skilled technical workers.
	+ Likewise, more than 4,000 companies around the world have built training campuses, the largest of which, run by **Infosys**and located in Mysore, India, has churned out more than 100,000 newly minted engineers since 2001.
	+ Others are **tuning in to shifting demographics**to try and prevent job loss in the first place. For instance, BMW is **modifying manufacturing plants** to meet the needs of older workers, rather than forcing them to retire.
* **Improved availability to quality education, including skills training for adults,** is a solution that in principle at least is not opposed by any side of the political spectrum, and welcomed even by those who are optimistic about long term technological employment.
* **The typical management role will, as a result, change to allow managers to concentrate on the task of supporting employees and improving their performance thus allowing them to add more, rather than less, value.**

*Topic: Challenges to internal security*

[**8) The Directorate General of Civil Aviation (DGCA) has recently issued draft regulations for private operations of Unmanned Aerial Vehicles (UAVs), or drones. Comment on these regulations. (200 Words)**](http://www.insightsonindia.com/2016/05/10/8-directorate-general-civil-aviation-dgca-recently-issued-draft-regulations-private-operations-unmanned-aerial-vehicles-uavs-drones-comment-regulations/)

[Business Standard](http://www.business-standard.com/article/opinion/stifling-drones-116050901266_1.html)

**Summary of Regulations:**

* The regulations envisage that **every privately owned drone should have a Unique Identification Number (UIN),** and be equipped with Radio Frequency Identity tags and Subscriber Identification Modules.
* **Every owner must be an Indian citizen** (aged 13 years or older), or an **Indian-registered body corporate** with substantial ownership and control vested in Indian nationals.
* The **UAV operator must be over 18 years of age** and must be issued a permit, if the vehicle is to be flown at more than 200 feet above the ground level.
* Drones must conform to safety regulations **and carry appropriate insurance to cover liability.**
* Micro drones weighing less than two kilograms have less onerous regulatory requirements but**these must not be flown except through visual line of sight.**
* **Drones** **should not be used in controlled airspace** reserved for the Air Traffic Control of manned aircraft.
* **Civilian drones are banned from using uncontrolled airspace** across vast swathes.
* Drones are not to be used at all in most of Delhi. Nor can these be used within 50 km of international borders, or close to “sensitive” installations.
* **Additional permissions and clearances must be granted by the local police**, by the Department of Telecommunications and in some cases, by the local administration.
* **Flight plans must be filed for usage.**
* A **security clearance must be obtained** from the Bureau of Civil Aviation Security.
* The permits **will have to be acquired at least 90 days in advance of actual operations.**
* The permits will require **renewal every two years** with clearances from the Home ministry or the Bureau.
* The operating permit can also be cancelled by DGCA if it does not meet the acceptable standards set by the authorities.

**Positives:**

* The UAV industry is a thriving, high-growth and high-technology segment and a large number of security and safety concerns are centred on the proliferation of drones.
* drones can perform a host of useful tasks. For example, they are effectively used in damage assessment and rescue operations after disasters; for general surveys and mapping; for monitoring of power lines, ports, and pipelines; commercial photography; crop spraying; gathering of weather data, etc.So regulating it is a good idea.

**Negatives:**

* the draft regulations seem to be **overly complicated and restrictive**, and **may be hard to enforce in practice**.
* In sum, **a lot of paperwork** from government departments must be accumulated before the applications for operator permits can be made.
* It is also possible that **huge commercial opportunities are being stifled** before even being conceptualised by the stringent nature of the area-based bans and the insistence on visual line-of-sight operations.
* In effect, given the number of “sensitive installations”, and the discretionary permissions, **very little airspace may be available.**
* Already, **multiple types of drones are easily available**, with the cheapest ones costing less than Rs 1,500 a piece.
* If permissions are too tedious or difficult to get, there will be a **temptation to cut corners and just ignore regulations.** Drones have already proliferated and, given sensible regulations, the market could explode

The multiple safety, security and privacy concerns must be addressed. But the regulations should not be so onerous as to smother the sector in red tape.

*Topic: Economic growth – employment*

[**5) In India, rural labourers constitute one of the most vulnerable sections of the society. Are their real wages growing? Examine the trend in recent years and suggest what government can do to improve their wages. (200 Words)**](http://www.insightsonindia.com/2016/05/11/5-india-rural-labourers-constitute-one-vulnerable-sections-society-real-wages-growing-examine-trend-recent-years-suggest-government-can-improv/)

[Livemint](http://www.livemint.com/Money/4tPWneIPGSJQey6kwJQPUJ/Real-wages-for-rural-labour-contracted-in-past-two-years.html)

**No, their real wages are not growing:-**

* Minimum support prices have increased very modestly
* the drought has affected demand for agricultural labour
* A large part of the blame must be shouldered by the government for not only ignoring the warning signs but also aggravating an already fragile situation in rural areas.
* The worst cutbacks were reserved for agriculture and rural areas, with reduced spending on some crucial interventions such as
	+ the Rashtriya Krishi Vikas Yojana
	+ the winding up of the Backward Regions Grant Fund
	+ This was accompanied by reduced expenditure on irrigation schemes, such as the Integrated Watershed Management Programme and Accelerated Irrigation Benefits and Flood Management Programme.
	+ the central government has only grudgingly accepted the MGNREGS.
* But it has also been aggravated by lack of demand from the non-agricultural sector

**Trend in recent years:-**

* Real wages of rural labourers, probably the poorest of the poor, have been shrinking in the past two years.
* In December 2015, average real rural wages (wages adjusted for inflation) were down 1% from a year ago.
* As the chart shows, real rural wages grew rapidly in 2011 and rose substantially in 2012.
* The deceleration started in 2013, when inflation shot through the roof, but the reversal started in the second half of 2014, when growth in real rural wages slipped into a negative territory.
* the fall in real wages has occurred despite inflation coming down.

**What can government do to increase their wages?**

* While an increase in financial spending will certainly be required to revive sagging rural demand
* the situation also requires political commitment to make growth inclusive
* **MGNREGA** also has enormous potential to boost agricultural growth.
	+ It has allowed the people in rural areas to undertake activities like desilting, pond excavation, etc in their own villages and on their own land, to increase water availability, soil fertility and develop land.
	+ MGNREGA also has a positive impact in creating sustainable livelihoods for individual beneficiary households.
	+ Evidently, both MGNREGA and agricultural growth have a significant role to play in increasing agricultural wages and in rural development.
* **Better targeting of subsidies** via direct benefit transfer and**increase infrastructure spending**which in turn should drive construction activity thereby creating jobs in rural India and boosting rural wages
* restructuring of manufacturing sector
* government schemes like Pradhan Mantri Sinchayee Yojana,Pradhan Mantri Fasal Bhima Yojana ,soil health card need to be implemented properly
* buffer stocks and FCI need to be enhanced.
* credit availability under MUDRA and financial inclusion is needed.

*Topic: Prevention of money laundering*

[**6) Recently, India was successful in making amendments to the 1983 India-Mauritius treaty to curb tax evasions.  Discuss the amendments and their likely impact on India’s economy. (200 Words)**](http://www.insightsonindia.com/2016/05/11/6-recently-india-successful-making-amendments-1983-india-mauritius-treaty-curb-tax-evasions-discuss-amendments-likely-impact-indias-economy/)

[Livemint](http://www.livemint.com/Politics/4vxPp8oP6hWBotZPYUWSkN/India-gets-right-to-tax-capital-gains-in-amended-Mauritius-t.html)

**Impact on Indian economy:-**

**Positives:-**

* Amendment to the 1983 India-Mauritius treaty, which will come into force on 1 April 2017, will also apply to the India-Singapore treaty, **shutting two lucrative investment routes** preferred by foreign investors
* India will **get the right to tax capital gains on investments channelled through Mauritius** under an amended tax treaty it signed
* In addition, the amended India-Mauritius **double taxation avoidance treaty has also provided for a limitation of benefit clause** that will ensure that only genuine Mauritius-based companies get the benefit of the bilateral tax treaty.
* The government said the amendment has been **designed to curb treaty abuse, tax evasion and round-tripping of funds**
* The changes will have an **impact on foreign investors** who route their investments from these two countries to avoid paying capital gains tax in India.
* changes in the tax treaty will **complement the government’s efforts to plug tax evasion and tax avoidance** and its fight against black money—untaxed, unaccounted wealth hidden away by Indians.
* In a relief to existing investors, **shares acquired before 1 April 2017 will not be taxed by Indian authorities.**
* The amended treaty has also **provided a two-year transitionary phase** wherein the capital gains will be taxed at 50% of the existing tax rate; the full domestic tax rate will be applicable from 2019-20, provided the limitation of benefit clauses have been adhered to.
* Under the amended treaty, **only those Mauritius-based companies that have a total expenditure of more than Rs.27 lakh in the preceding 12 months will be able to benefit from the tax treaty**.
* curb revenue loss, prevent double non-taxation, streamline the flow of investment and stimulate the flow of exchange of information between India and Mauritius
* With the Singapore treaty co-joined with Mauritius treaty, those funds that are purely Indian-centric will not have any incentive to route their funds through Mauritius and Singapore. **This will impact private equity funds who invest in unlisted securities**.
* **Portfolio investors investing in Indian stocks will also be impacted** if they sell in less than 12 months as it will attract the short term capital gains tax.
* The amended treaty also seeks to subject interest arising in India to Mauritian resident banks to a withholding tax of 7.5% in India for debt claims or loans made from 1 April 2017.
* The **grandfathering date** of April 2017 and a 50% concessional rate upto April 2019 augers well and lends **certainty to investors** on the applicability of the treaty as investors have been nervous on the future of the Mauritius treaty.
	+ It would push tax costs for investors but there is certainty and clarity for investors.**In the medium to long term, it will contribute to attracting investments**.
* It is a move in line with the government’s initiatives to curb black money in the system, money laundering and tax avoidance. prevent double non-taxation, streamline the flow of investment, and stimulate the flow of exchange of information between India and Mauritius.
* It is also expected to discourage speculators and non-serious investors, and thereby reduce volatility in the market.
* In this situation, the impact of the amendment in the Mauritius DTAA on the Singapore DTAA becomes critical — and it is expected that the **amended tax regime for** **Mauritius will be applicable to capital gains for Singapore tax residents too**
* Since investments until March 31, 2017 have been exempted from capital gains tax, **there is no risk of an immediate outflow of funds**.
* However, the protocol will impact all prospective investments with effect from April 1, 2017.
* Experts feel that while some investors who are bullish on India may advance their plans and invest before April 1, 2017 in order to save tax
* **Experts say the Netherlands may emerge as an alternative for FPIs following the changes to the Mauritius treaty.** The India-Netherlands treaty is a smart treaty, and it can emerge as a preferred alternative for FIIs especially those in Europe.

**Concerns:**

* **Impact on debt securities**
	+ Based on the information available at this stage, income from transfer of debt securities may continue to be exempt under the provisions of the amended India-Mauritius tax treaty as it appears that the amendment is only with respect to the transfer of shares.
* The imposition of capital gains tax on the acquisition of shares of Indian companies after March 31, 2017 could, however, **result in a slowing of the flow of investments.**
* there would be **no change for P-notes as of now**. P-notes is a separate decision, it is not linked to the treaty.

*Topic: Economic growth – employment; Effects of liberalization on the economy*

[**7) “For jobs to grow, consumer demand has to improve consistently. This can only happen with an industrial policy, which India has not had since 1991.” In the light of slow growth rate of jobs in India, discuss the statement. (200 Words)**](http://www.insightsonindia.com/2016/05/11/7-jobs-grow-consumer-demand-improve-consistently-can-happen-industrial-policy-india-not-since-1991-light-slow-groth-rate-jobs-india/)

[The Hindu](http://www.thehindu.com/todays-paper/tp-opinion/job-growth-at-a-snails-pace/article8582151.ece)

**What can be the form and the objectives of the industry policy to create consumer demand?**

* Ease of doing business improvement and infrastructure investment increases should improve the economic environment.They can assist an industrial policy, which has been lacking in India ever since economic reforms began in 1991
* One of the most important sources of increased consumer demand since the turn of the century was the **increase in infrastructure investment.**
	+ With the Golden Quadrilateral Highway network in 2001, infrastructure investment picked up.
	+ As a result, the number of workers in construction rose from 17 million in 1999-2000 to 26 million in 2004-2005.
	+ Investment in infrastructure rose strongly thereafter.The result was that employment in construction jumped from 26 to 51 million in 2011-12, trebling from the turn of the century.
	+ Unlike in the five years preceding 2004, real wages increased significantly until 2012.
	+ **The combined effect of non-agricultural job growth plus real wage growth was a consumer demand booming in both rural and urban areas.**
	+ **The combined demand and supply effects of investment plus job growth resulted in sustained economic growth at a rate unprecedented in India’s economic history**.
* **While the share of organised sector jobs is increasing, most of the job increases are still taking place in the unorganised segment of industry and services, and in informal jobs.**So the focus of the policy has to be on increasing organised sector jobs.
* **Agriculture related industries like food processing need to be given more focus to avoid this kind of situation.**Since 2004-2005, for the first time in Indian history, 5 million agricultural workers have been leaving agriculture per annum.
* **Because of the lack of structured industrial policy**despite secondary gross enrolment ratio increased from 62 to 79 per cent between 2010 and 2014,The educated youth are unlikely to join agriculture and will look for non-agricultural jobs in urban areas. The revolution in rising expectations is already causing social movements (the Patel and Jat agitations in Gujarat and Haryana, for instance).
* This raises the question whether government efforts to revive growth and create jobs add up**. Certainly the revival of infrastructure investment will create more construction jobs to absorb those leaving agriculture (more than 5 million per annum).but that alone is not sufficient**
* **Government’s efforts have definitely triggered the consumer demand**
	+ First, the Ministry of Labour is **finalising the scheme to offer to pay 8.33 per cent of the salary as contribution for a pension scheme** for new employees getting formal sector jobs. The scheme will be applicable to those with salary up to Rs.15,000 per month.
	+ Second**, the Ministry of Commerce is customising incentives for labour-intensive export sectors**.It has already initiated an Interest Equalisation Scheme and the Merchandise Exports from India Scheme to support declining exports.
	+ In the Budget, the government also announced that 100 per cent FDI in food retail will be permitted on the condition that the goods have to be manufactured in India.
	+ under the Stand Up India scheme, Scheduled Castes, Scheduled Tribes and women entrepreneurs will get support such as free pre-loan training and facilitating loan and marketing. There will be a Rs.10,000 crore refinance window to the Small Industries Development Bank of India (SIDBI). SIDBI will engage with the Dalit Indian Chamber of Commerce and Industry and other institutions to take the scheme forward.

Government schemes rarely create many jobs. International evidence is **that when consumer demand grows consistently, whether from domestic or international markets, that is when jobs grow.** That requires an industrial policy.

*Topic: Awareness in S&T*

[**8) What is the difference between GIS and Geospatial? Examine the uses of geospatial maps. Recently government released a draft bill which seeks to regulate geospatial mapping. What are its implications? (200 Words)**](http://www.insightsonindia.com/2016/05/11/8-difference-gis-geospatial-examine-uses-geospatial-maps-recently-government-released-draft-bill-seeks-regulate-geospatial-mapping-implicatio/)

[The Hindu](http://www.thehindu.com/todays-paper/tp-opinion/freedom-to-map-india/article8582144.ece)

[ET](http://economictimes.indiatimes.com/tech/internet/geospatial-bill-will-impact-tech-giants-like-google-uber-as-well-as-indians-using-gps-enabled-smartphones/articleshow/52214514.cms)

[Reference](https://www.gislounge.com/difference-gis-geospatial/)

**GIS vs Geospatial:**

* GIS refers to a **system where geographic information is stored in layers and integrated with geographic software programs so that spatial information can be created,**stored, manipulated, analyzed, and visualized (mapped)
	+ GIS refers more narrowly to the traditional definition of using layers of geographic data to produce spatial analysis and derivative maps.
* **GEOspatial:**
	+ **used to define the collective data and  associated technology has a geographic or locational component.**
	+ This means that the records in a dataset have locational information tied to them such as geographic data in the form of coordinates, address, city, or ZIP code. **GIS data is a form of geospatial data.**
	+ **Geospatial technology refers to all of the technology used to acquire, manipulate, and store geographic information.**   GPS, remote sensing, and [geofencing](https://gislounge.com/geofencing/)are other examples of geospatial technology.
	+ **Geospatial is more broadly use to refer to all technologies and applications of geographic data**.
	+ For example, popular social media sites such as Foursquare and Facebook use “check-ins” that allow their users the ability to geographically tag their statuses.  While those applications are considered to be geospatial, they don’t fall underneath the stricter definition of what makes up a geographic information system

**Uses of geospatial maps:**

* Geospatial maps reflect how our neighbourhoods are mutating in real time.
* They allow us to capture the extent and nature of air pollutants around us
* plot the unsustainable plundering of our groundwater
* gauge the spread of a new flu outbreak to confirm if official estimates of, say, a malaria outbreak are understated
* simply plot restaurant options in a neighbourhood.
* Geo-spatial maps contemporary usage in industries such as taxi services, Google map, and other location based updates could be added.
* Once a tool that was affordable only to the largest organizations, geospatial systems have become a cost-effective option for even the smallest organizations.
* problems in the environmental and life sciences, in particular [ecology](https://en.wikipedia.org/wiki/Ecology), [geology](https://en.wikipedia.org/wiki/Geology) and [epidemiology](https://en.wikipedia.org/wiki/Epidemiology).
* It has extended to almost all industries including defense, intelligence, utilities, Natural Resources (i.e. Oil and Gas, Forestry … etc.), social sciences, medicine and[Public Safety](https://en.wikipedia.org/wiki/Public_Safety) (i.e. emergency management and criminology), disaster risk reduction and management (DRRM), and climate change adaptation (CCA)

**Draft Geospational bill 2016:**

**Negatives:**

* **the possibility of harassment for possession of widely prevalent cartographic imagery**at odds with the official boundary and the implications for a host of applications, commercial or in the public interest, that need real-time updates.
* The **time lag the proposed process would impose**, as well as the possibility of updates being rejected have worrying, disruptive implications.
* The draft Bill says that the government will vet geospatial information to preserve the “security, sovereignty and integrity” of the country — a broad objective that **could be misused by the authorities** to prevent any inconvenient information from being tracked, besides creating an avenue for rent-seeking.
	+ all information that can be represented on geographical maps will have to be necessarily vetted by a special authority before being publicised gives a lot of power to the authority.
* This is ironic considering that the **Centre has a data-sharing policy in place**since 2012 that exhorts departments to make their data on health statistics, forests, weather, and so on, more accessible to the public and in machine-readable formats.
* According to experts, the proposed law will bring into its ambit not just companies or agencies using maps for professional reasons but anybody with a smartphone that is GPS enabled
* **This adds to the challenges already facing the adventure tourism industry** as the current law denies access to physical maps of mountainous regions, forcing them to rely on digital maps by Google
* One of the **biggest ironies is that India has so many users of Android phones and smartphones** who are knowingly or unknowingly sharing their location real time through GPS.
	+ They may be sharing their location via WhatsApp with friends, or on a delivery app or while engaging in running or walking. If the bill becomes law, it prohibits all this
* **It might be highly impractical for each smartphone user to get a license**
* **the bill would render illegal all businesses dependent on real-time navigation and location intelligence.**
* The **government will respond within three months of a licence application,** but given the dynamic nature of maps, the spatial data may get obsolete in that period
* the **legislation was “anti-national”** and went against some of government’s most ambitious projects, including Smart Cities.
* **Monitoring the digital space will also make government officials very powerful**and in a position to demand bribes from unaware or ignorant violators. If implemented in its present form, the proposed Bill could have severe consequences of these service providers
* The proposed Bill **does not cover Indian government agencies such as ISRO**, which is also another reason for protests emanating from various stakeholders.
* The success of ‘Digital India’ lies in more service operators coming out with wider range of services and greater number of users accessing these services. **If the proposed Bill acts as a deterrent to the spread of similar services,**then it will end up as a case of the government meaning well but ending up shooting itself in the foot.

**Positives:**

* There can be no debate that the country’s territorial integrity needs to be maintained, physically and in the digital world, and therefore**, a stringent law against violators seems imperative.**
* Moreover, geospatial information easily available from services like Google Earth, Google Maps etc, **has been reportedly used by terror groups against India**. In the run up to the Mumbai terror attacks, Lashkar jihadis were reportedly shown images of vital locations in Mumbai.
* Wrong depiction of the map of India could land the violators in jail with a maximum term of seven years and fine upto Rs 100 crore. **This measure has been envisaged by the government against the backdrop of instances where certain social networking sites showed Jammu and Kashmir and Arunachal Pradesh as part of Pakistan and China respectively**
* The proposed law applies not just to primary data providers such as Google and Apple, but to down-the-line service providers like Cab aggregators such as Uber and Ola, restaurant aggregators and last-mile delivery services like Swiggy, or even real estate information service providers like MagicBricks, 99 Acres, etc, all of whom draw upon geospatial data and images to offer efficient services to their end user.This law will make them accountable.
* The government is proposing to set up a regulatory body that will comprise of digitally aware senior bureaucrats along with subject matter experts who will oversee the digital space for violations. Hopefully, **this body will successfully fulfill its responsibility while ensuring a level-playing ground for all.**
* It is hoped that the government will be able to mitigate all stakeholder concerns before putting it up for final passage in Parliament.

*Topic: Economic growth – employment*

[**6) Recently, Indian parliament approved the Insolvency and Bankruptcy Code 2016. Discuss its significance and challenges in its implementation. (200 Words)**](http://www.insightsonindia.com/2016/05/12/6-recently-indian-parliament-approved-insolvency-bankruptcy-code-2016-discuss-significance-challenges-implementation/)

[Livemint](http://www.livemint.com/Opinion/glaBuxD501bfKHqYx3FiNO/Banktrupcy-code-Will-the-govt-be-able-to-achieve-its-object.html)

[Livemint](http://www.livemint.com/Politics/mQNm3XHXSqFVFoSCGsn3bO/Parliament-clears-Insolvency-and-Bankruptcy-Code-2016.html)

**Significance :**

* India will have a new bankruptcy law that will **ensure time-bound settlement of insolvency, enable faster turnaround of businesses and create a database of serial defaulters.**
* It will **be critical in resolving India’s bad debt problem, which has crippled bank lending**.
* It leads to the establishment of the new regulator **the Insolvency and Bankruptcy Board (IBB),**the focal point of the IBC.
	+ The IBB will **need to establish a feedback loop of identifying gaps in the bankruptcy process, and use a sound regulation-making process to revise the regulations**. IBB will also be the regulator for the two new regulated industries—information utilities and insolvency professionals.
* The ministry of finance has designed a **‘task force’ process for creating new institutions, an innovation compared with the traditional government approach**of hiring a few wise men to do the job.
* **Conventional government techniques of setting up a tribunal will collapse under this load.** This calls for utilising the business process re-engineering that has been devised by Justice N.K. Sodhi and his team in the Task Force for the Financial Sector Appellate Tribunal.
* **Financial Sector regulators** such as the Reserve Bank of India (RBI), Securities and Exchange Board of India (Sebi) and for Insurance Regulatory Development Authority (Irda) will **need to review and revise their regulations to ensure rapid resolution of default under the IBC**.
	+ An example is the asset classification and provisioning norms specified by the RBI for banks.**This should now switch to the global standards**about how banks treat a firm where the bankruptcy process has begun.
	+ Similarly, Sebi’s norms for mergers and acquisitions, closure of listed firms, and debt to equity conversions will need review, as will similar provisions under the Companies Act, 2013.
* The new code **will replace existing bankruptcy laws and cover individuals, companies, limited liability partnerships and partnership firms.** It will amend laws including the Companies Act to become the overarching legislation to deal with corporate insolvency. **It will also help creditors recover loans faster.**
* The **move is also expected to help India move up from its current rank of 130 in the World Bank’s ease of doing business index**, since all reforms undertaken by 31 May are incorporated in the next ranking.
* On the parameter of resolving insolvency, India is ranked 136 among 189 countries. At present, it takes more than four years to resolve a case of bankruptcy in India, according to the World Bank.**The code seeks to reduce this time to less than a year.**
* The bill proposes the **creation of a new class of insolvency professionals** that will specialize in helping sick companies. It also provides for creation of information utilities that will collate all information about debtors to prevent serial defaulters from misusing the system.
* It also proposes to use the existing infrastructure of National Company Law tribunals and debt recovery tribunals to address corporate insolvency and individual insolvency, respectively.
* The **bankruptcy code has provisions to address cross-border insolvency through bilateral agreements with other countries**.
* It **also proposes shorter, aggressive time frames for every step in the insolvency process** right from filing a bankruptcy application to the time available for filing claims and appeals in the debt recovery tribunals, National Company Law Tribunals and courts.
* Bankruptcy applications **will now have to be filed within three months; earlier, it was six months.**
* **To protect workers’ interests**, the code has provisions to ensure that the money due to workers and employees from the provident fund, the pension fund and gratuity fund shouldn’t be included in the estate of the bankrupt company or individual
* **There are also provisions that disqualify anyone declared bankrupt from holding public office**, thereby ensuring that politicians and government officials cannot hold any public office if declared bankrupt.

**Challenges:**

* The government now **needs to create state capacity for the four pillars of institutional infrastructure required for the Code to work.** And it needs to plan a transition from existing provisions of laws, pending cases and financial regulations.
* **Fore pillars are:**
	+ new regulated industries of “information utilities and insolvency professionals agencies” like stock exchanges to brokers
	+ information repositories like stock depositories
	+ a new regulator, without the failings of existing regulators
	+ a high quality adjudication infrastructure
	+ without which the IBC caseload will collapse under the inefficiencies of courts and tribunals.Unless these four pillars are in place, the Code will fail.
* The Code provides for a National Company Law Tribunal (NCLT) for corporate insolvency resolution and Debt Recovery Tribunals (DRT) for individual insolvencies. T**he NCLT and NCLAT (the appeals body) are yet to become operational.**
	+ Even when they do, they are going to be a common forum for two major laws, the Companies Act and the IBC. **This means that the NCLT will have the case load of the Company Law Board (CLB), the high courts and the Board for Industrial and Financial Reconstruction.**
	+ CLB had 5,862 cases pending as of March 2014. The high courts had 4,814 winding up cases and 231 cases of amalgamations under Section 394, pending as of March 2014. The BIFR had 871 pending cases in March 2013. Further, many of the banks’ existing non-performing asset (NPA) accounts might find themselves as new cases under the IBC.
* **Multiple cases dealing with recovery actions by lenders, resolution and winding up are pending at present.** A transition plan must be created ahead of time, put up for public inputs and finalised. New institutions, arrangements and funds must be put into place before the new law comes into force. **Without this, the transition process will be chaotic.**
* **The IBC interacts with numerous laws**. For example, the Code visualises rapid closure of firms in liquidation. However, **earlier attempts to do the same have run into conflict with labour laws and the Industrial Disputes Act, 1947**.
* In summary, enacting the IBC will be a great step forward for Indian economic reforms. **But the gains for the economy will come only after an** **exercise in complex project management covering eight areas**:
	+ Creation of the regulator
	+ Creation of an adequate National Company Law Tribunal
	+ Creation of an adequate Debt Recovery Tribunal
	+ Creation of Information Utilities
	+ Creation of Insolvency Professionals
	+ Drafting a transition process for existing cases
	+ Ensuring interoperability with existing laws
	+ Modifying financial sector regulations
	+ Failure on any of these could mean failure to achieve the objective of the Code—a sound bankruptcy process.

*Topic: Resource mobilization*

[**7) What do you understand by double taxation? Why countries like Mauritius have become tax havens for tax evaders? Also discuss how will the recent amendment to India’s bilateral Double Taxation Avoidance Agreement with Mauritius benefit India. (200 Words)**](http://www.insightsonindia.com/2016/05/12/7-understand-double-taxation-countries-like-mauritius-become-tax-havens-tax-evaders-also-discuss-will-recent-amendment-indias-bilateral-double-taxation-avoid/)

[Livemint](http://www.livemint.com/Opinion/y66GQ651NUDjq3LzID1RdK/A-right-move-at-an-appropriate-time.html)

[The Hindu](http://www.thehindu.com/todays-paper/tp-opinion/closing-the-tax-bolthole/article8587067.ece)

[Reference (Frontline)](http://www.frontline.in/static/html/fl2023/stories/20031121002108900.htm)

[The Indian Express](http://indianexpress.com/article/opinion/editorials/tax-treaty-arun-jaitley-mauritius-india-capital-gain-no-small-change-2795753/)

**Double taxation:**

* A **taxation**principle **referring to income taxes that are paid twice on the same source of earned income**. **Double taxation** occurs because corporations are considered separate legal entities from their shareholders.
* Indiahas comprehensive Double Taxation Avoidance Agreements with 88 countries. This means that there are agreed rates of tax and jurisdiction on specified types of income arising in a country to a tax resident of another country.
* Under the Income Tax Act 1961 of India, there are two provisions,
	+ Section 90 and Section 91, which provide specific relief to taxpayers to save them from double taxation.
	+ Section 90 is **for taxpayers who have paid the tax to a country with which India has signed DTAA**
	+ while Section 91 **provides relief to tax payers who have paid tax to a country with which India has not signed a DTAA**. Thus, India gives relief to both kinds of taxpayers.
* According to a UN paper (UNCTAD), double taxation most often occurs when both the source country and the country of residence concurrently exercise their taxing right without providing full relief for the other country’s tax. Countries enter into double tax treaties to minimize the double taxation arising out of this intersection and the resulting unfairness.

**Why countries like Mauritius have become tax havens for tax evaders?**

* opacity of using tax havens means they are a breeding ground for **parking bribe money, circulating money laundering proceeds or other movements of international crime money** like Panama.
* A tax haven is a country that offers foreign individuals and businesses little or no tax liability in a politically and economically stable environment.
* Tax havens also provide little or no financial information to foreign tax authorities.
* Individuals and businesses that do not reside in a tax haven can take advantage of these countries’ tax regimes to avoid paying taxes in their home countries.
* Tax havens do not require that an individual reside in or a business operate out of that country in order to benefit from its tax policies.
* In Panama, there are firms that can help set up a company within 48 hours and provide nominee directors/shareholders
* ease of setting up companies/trusts/foundations, , the possibility to hide beneficial ownership

**Benefits of the recent amendments to DTAA of Mauritius :**

* Amendment to the 1983 India-Mauritius treaty, which will come into force on 1 April 2017, will also apply to the India-Singapore treaty,**shutting two lucrative investment routes preferred by foreign investors**
* The amended India-Mauritius double taxation avoidance treaty has also **provided for a limitation of benefit clause** that will ensure that only genuine Mauritius-based companies get the benefit of the bilateral tax treaty.
* The government said the amendment has been **designed to curb treaty** **abuse, tax evasion and round-tripping of funds**
* changes in the tax treaty will **complement the government’s efforts to plug tax evasion and tax avoidance and its fight against black money**—untaxed, unaccounted wealth hidden away by Indians.
* Under the amended treaty, **only those Mauritius-based companies that have a total expenditure of more than Rs.27 lakh in the preceding 12 months will be able to benefit from the tax treaty.**
* **Curb revenue loss, prevent double non-taxation, streamline the flow of investment and stimulate the flow of exchange of information between India and Mauritius**
* It is also expected to **discourage speculators and non-serious investors, and thereby reduce volatility in the market**.
* **The practice of setting up companies in Mauritius merely to take advantage of the DTAA and the prevailing low tax rates there will now be rendered pointless.**
* The DTAA amendment will also ensure India’s conformity to the Organisation for Economic Cooperation and Development and G20-led guidelines on **combating base erosion and profit shifting**.
* For a country keen to play a greater role in global decision-making, the **move to seal a key route for the round-tripping of capital generated out of tax-dodging enterprises will help boost both revenue** and confidence in the rule of law in India.
* With the **tax arbitrage possibility doused, it can be expected that foreign portfolio investment data would improve in quality**as it is likely to reflect faith in the strength of India’s macroeconomic fundamentals.
* It is beyond doubt that ensuring a level playing field for all international investors, irrespective of domicile, can only serve to enhance India’s attractiveness as an investment destination in the long run.

*Topic: Disaster management*

[**4) Examine how the Disaster Management Act, 2005 can be useful in drought mitigation as well as in assessment, planning and relief in drought hit regions. Recently, the Supreme Court directed the Centre to formulate a National Plan on mitigation and crisis management, and standardise the methodology for declaring a drought. Do you think it’s an act of judicial overreach? Comment. (250 Words)**](http://www.insightsonindia.com/2016/05/13/4-examine-disaster-management-act-2005-can-useful-drought-mitigation-well-assessment-planning-relief-drought-hit-regions-recently-supreme-court-directed-cent/)

[The Hindu](http://www.thehindu.com/todays-paper/tp-opinion/drought-relief-on-order/article8592218.ece)

**How disaster management act can be used in drought mitigation?**

* preparation of **Drought Management Plans at various levels**. Such plans will indicate the detailed work plan and milestone with recommended time-frame and suitable indicators to enable monitoring and review of actual progress made.
* **Separate Drought Monitoring Cells (DMCs)**will be created at the state level with adequate staff under the **control of State Disaster** **Management Authorities (SDMA’s).** State level monitoring cells will have requisite Administrative, Technical and data maintenance staff.
* State DMCs will undertake on a priority basis, **the preparation of vulnerability maps for their respective States.**
* **National Disaster Response Force (NDRF) For the purpose of specialised response to a threatening disaster situation** or disasters both natural and man-made, the DM Act, 2005 has mandated the creation of a National Disaster Response Force (NDRF).
* The **National Institute for Disaster Management (NIDM**), which functions within the framework of the broad policy and guidelines laid down by the NDMA, has capacity development as one of its major responsibilities, along with training, research, documentation and the**development of a national level information database.**
	+ It will network with other knowledge-based institutions and assist in imparting training to trainers, DM officials, etc. It will also be responsible for synergizing research activities and will be geared to emerge as a ‘centre of excellence’ at the national and international levels.
* Assessment of damage expected will include agricultural production, depletion of water resources, livestock population, land degradation and deforestation as well as human health.
* **Prevention and mitigation:**
	+ Drought Prone Area Delineation
	+ Gradation of Drought Prone Areas (High, Moderate, Low)
	+ Automatic weather stations and raingauges will be put in place at appropriate places to enable micro level analysis and forecasting.
	+ State DMCs will harmonize the current/ ongoing efforts by various knowledge centres at the national and international levels.

**Analysis about The Supreme Court directing the Centre to formulate a National Plan on mitigation and crisis management:**

**No its not judicial overreach because of the following reasons:**

* The supreme court had to take because of failure of centre and states action
	+ to call out the reluctance of some States to declare a drought while simultaneously decrying the Centre’s recourse to “federalism” as an excuse to avoid taking up the matter with these States.
	+ Bihar and Haryana had been remiss in not officially declaring a drought despite clear indications of water scarcity
	+ also that Gujarat was late in its declaration made in April 2016.
	+ The governments of Bihar and Haryana had argued that a declaration of drought was not necessary as rainfall deficits had eased in many districts by July 2015. But the Supreme Court has pointed out that many districts in these States have since progressively suffered rainfall deficits till as late as October 2015.
	+ The court also said that steps taken by State governments for irrigation and foodgrain production, or the presence of perennial rivers (which the Bihar government has submitted as a factor), alone cannot determine whether there is a drought-like situation or not. So It has directed the Centre to take proactive steps in drought mitigation .
	+ By laying down a broad framework for dealing with such situations and firmly emphasising that the government cannot absolve itself from acting decisively Supreme court reminded the governments of their mandate.

**Yes it is judicial overreach:**

* Step by step, brick by brick, the edifice of India’s legislature is being destroyed
* **Increasing interference in budget making :**
	+ India already has the National Disaster Response Fund and the State Disaster Response Fund and now SC asked centre to create a third fund. The appropriation bill is being passed. So India’s budget-making is being subject to judicial review.
* With over 4.4 crore cases pending in courts, the Supreme Court should be the last one taking on a high moral tone while admonishing state and central governments for their lapses.
* Experts showed deep concern over the increasing tendency of the judiciary to make laws and impose directions that are solely within the domain of the executive or the legislature
	+ The judiciary has delved into several aspects of governance, including spectrum auctions, coal block allocations, right to information and powers of the Central Bureau of Investigation.
* judiciary is breaching constitutional provisions that give the legislature, the judiciary and the executive their own exclusive domains. judiciary need to stay within the bounds imposed on it by the constitution, and not transgress into areas reserved for the executive or the legislature

*Topic: Environmental pollution; Infrastructure*

[**5) India has committed to “intended nationally determined contributions” (INDCs) to limit or reduce greenhouse-gas emissions by 2030. What are the challenges it faces in achieving INDCs? Does opting only for renewable sources help achieve this goal? Examine. (200 Words)**](http://www.insightsonindia.com/2016/05/13/5-india-committed-intended-nationally-determined-contributions-indcs-limit-reduce-greenhouse-gas-emissions-2030-challenges-faces-achieving-indc/)

[Livemint](http://www.livemint.com/Opinion/mU8pP1CCqd1LAXEh1nuOhJ/Renewables-are-not-enough.html)

**Challenges India faces in achieving INDC:**

* There is a real **risk that the Kyoto Protocol drama may be repeated with the U.S**. Congress rejecting an agreement that the U.S. administration has signed. Other countries may withhold ratification since the U.S. is the second largest emitter of GHGs after China will not happen.India should not be in a hurry to ratify the Agreement until there is clarity on the U.S. position.
* **Several major concepts and provisions were deliberately left ambiguous and open**to differing interpretations in order to reach consensus. Further negotiations are necessary to reach a common understanding to enable implementation.
	+ For example, take the concept of “transparency”.
		- Developed countries claim that transparency requires a “common and unified system” to compare climate action undertaken as Nationally Determined Contributions (NDC) by Parties.
		- Developing countries, on the other hand, point to the “flexibilities” available to them in recognition of the principle of “common but differentiated responsibilities and respective capabilities” (the well-known CBDR principle) and insist that this should be reflected in the application of the transparency provision.
	+ Perhaps the biggest impact from a Paris agreement will come from the single outcome with the greatest remaining uncertainty, **which is whether the agreement will have a long-term goal to decarbonise the global economy**by the end of the century.
	+ **No clarity on many issues:**
		- The Paris Agreement provides for a five-yearly “stocktake” which would enable an estimation of how much progress is being made in the implementation of the various contributions pledged by Parties in respect not only of mitigation but also adaptation, finance, technology transfer and capacity building.
		- **How each of these contributions will be measured and evaluated still needs to be worked out. This will be both a political and technical challenge**.
		- **Finance:**
			* **On**finance there has been backsliding. In Paris, it was agreed that no increase will be expected over $100 billion figure until 2025, five years into the implementation of the agreement.
			* When the agreement talks of “financial flows” rather than public resources in the form of official transfers, it is not clear what would be the constituents of these flows and the value assigned to each.
		- **Technology:**
			* On technology transfer, there is already an offensive by the U.S. corporate sector to ensure that in the post-Paris negotiations there is no concession on intellectual property (IP) issues.
			* The U.S. lobby has objected to the UN High Level Panel on Access to Medicines, which is considering how the IP issue may be dealt with, balancing the interests of different stakeholders to ensure equitable access to medicines, in particular for the poor and deprived.
		- Developed countries want to make the mitigation aspect specific and measurable while keeping other aspects such as finance and technology transfer to developing countries as indeterminate as possible so as**not to be held accountable for what they have pledged in these areas**.
			* For example, the UNFCCC Secretariat has already opened what it calls a “public registry” for NDCs ahead of negotiations which may, by default, create a common reporting framework, pre-empting negotiations among Parties.
			* Developing countries should question the rationale for such a registry ahead of a negotiated outcome on this issue.
				+ **Pressure on developing economies:**

At the insistence of the European Union, it was agreed at Paris that there would be a “Facilitation Dialogue” among Parties in 2018 focussed on the adequacy of aggregate NDCs with respect to the 2° Celsius global temperature limit and, even more ambitiously, the 1.5° Celsius limit favoured by the small island developing states. **Such a review will inevitably and rightly come to the conclusion that the aggregate mitigation pledges made so far fall far short of the above temperature limits**.

There will be pressure on major emerging economies, including India**, to take on more ambitious mitigation commitments**since the developed economies, though major emitters, are progressively reducing their emissions while the developing countries are still on a rising though diminishing trajectory.

* + - * + **Only current emissions are going to be considered:**

With the concept of carbon budget out of the way, it is current emissions alone which will become the focus in the new climate change regime and create inevitable pressures on India for enhanced mitigation pledges .

India, for its energy security, will continue to rely on coal to generate power for its growing economy for the foreseeable future. This is already being projected as being contrary to the spirit of the Paris Agreement irrespective of the fact that several developed countries including the U.S. and Japan and among emerging economies, China, already use far more coal than India for their power generation.

* + - * + **Other issues related to India**:

On the loss side, India’s long-standing objective in climate talksis to avoid undue limits on energy options.This dint go in India’s favour.

massive acceleration of national efforts needed- Over the past decade, energy productivity has grown by only 0.7% annually, and the share of zero-carbon energy rose by only 0.1 percentage point per year. Moreover, even if the INDCs were fully implemented, these annual growth rates would reach only 1.8% and 0.4 percentage points, respectively.

The country estimates it will need $206 billion for the period 2015-2030, with additional investments needed for disaster management

It does not include any “meaningful” targets and has discharged developed nations from their historical responsibility of Green house gas emissions

Paris agreement says all parties — including developing nations — must take action to cut emissions. This means makes developing nations must take on additional obligations..

In terms of loss and damage, the text says these will not be seen in terms for liability and compensation, so developed countries will not have no real obligation.

Oil and gas companies such as RIL, IOC, HPCL,BPCL, Cairn India may have to investheavily on low emission technology

Conglomerates like Tatas, Aditya BirlaGroup, Reliance Industries, etc would have to source more renewable power as government may enforce stricter renewable purchase obligation

Manufacturers may see cost pressure if concessional funds are not available to implement energy effi cient solutions

NTPC, Adani Power and Jindal Steel and Power, among others may have to revisit growth plans as pressure mounts on India to cut use of thermal coal

Tata Motors, Maruti and M&M would be under pressure to invest more on low emission technology

While India’s INDC lays out its existing climate measures in detail, it falls short on a number of the elements of transparency mentioned in a decision madeat the Lima climate talks last December . These include a lack of clarity on emissions intensity in the base year (2005) and target year (2030), as well as the scope and coverage of the intensity target and the methodologies for measuring it

**Yes India benefits:**

* 5 yr review update and ratchet mechanism is essential; it is designed to stimulate a virtuous cycle of more ambitious pledges, greater investment in low emissions options, and lower costs and barriers to implementation of those options, leading to yet more ambitious pledges. **If this works, and it does result in enhanced collective action to limit climate change, then India will be a substantial gainer**
	+ the Agreement preserves space for greater energy use, And, the Paris Agreement offers the not trivial benefit of inducing India to establish a more robust domestic process for energy planning and policy.
* Managed to put back the **important principle of equity and “common but differentiated responsibilities” i**n text, which India has been pushing for. The US and developed nations wanted to dilute this plank.
* Though developed countries use fossil fuel — coal and gas — they wanted developing countries to cut emissions. It is still not clear if the developed nations will be forthcoming with funds and technology for clean energy or the modalities if they do.
* The **big challenge met was ensuring the agreement established the idea of climate justice**– acknowledging that industrialised nations have been the major emitters since 1850.
* India also **wanted a mention of sustainable lifestyle and consumption, which is there in the text.**
* Green energy generators to benefit as concessional funds may help build transmission infrastructure
* Solar equipment makers like Jain Irrigation, Schneider Electric India, ABB India, Siemens India may benefit
* Automobile and component companies like Bosch India, Mahindra Reva and Hero Electric, which work on green technology will benefit
* Energy efficiency solutions providers like the Indian arm of ABB, Alstom, Siemens, and L&T may gain from industrial demand
* Renewable energy project companies like Suzlon and other private equity-backed green energy companies like ReNew Power may gain

**What needs to be done ?**

* ensure that India’s vital interests are safeguarded and the principle of equity and equitable burden-sharing is reflected across this architecture.
* India **should make sure the ratchet mechanism sustains pressure on developed countries to ramp up their efforts.**This will require and upgrading our ability to analyse other country contributions and actively shaping the fine print of implementing language for the Paris Agreement in the coming years.
* India has to build a robust and ongoing national process to examine our energy and climate future, to replace India’s current ad hoc, disconnected, process of energy planning and policy.
	+ **This requires a more cogent system of energy information gathering and analysis.**
	+ It also requires exploring actions that bring synergies across development and climate outcomes (such as energy efficiency and public transport) and those that come with direct costs to the economy.
	+ also need answers to longer-term questions salient to future pledges, such as: how much additional coal energy do we anticipate needing and, to what extent can we urbanise while limiting high carbon lock-in.

**Fact:**

 India had in October committed to cut the rate of emissions relative to GDP by 33-35 per cent by 2030 from 2005 levels. The country is planning to boost its energy production from renewable sources to 40 percent of total by 2030. In order to achieve this target, the government has set five-fold increase in renewable energy capacity in the next five years to 175 giga watts.

*Topic: Infrastructure – telecommunications*

[**6) Recently, the Supreme Court struck down the Telecom Regulatory Authority of India’s decision asking service providers to compensate subscribers for dropped calls. Why penalty is regarded as not a solution to the call-drop problem? Examine. (200 Words)**](http://www.insightsonindia.com/2016/05/13/6-recently-supreme-court-struck-telecom-regulatory-authority-indias-decision-asking-service-providers-compensate-subscribers-dropped-calls-penalty-regarded/)

[Business Standard](http://www.business-standard.com/article/opinion/improve-telecom-infra-116051201234_1.html)

**Penalty is not regarded a solution because :**

* It is arbitrary, ultra vires, unreasonable and not transparent.
* TRAI in its eagerness to be seen as strict on service providers, it overlooked some basic factors.
	+ **the licence conditions allow up to two per cent of calls to be dropped.** But Trai, in its directive, said that service providers would have to pay consumers for all dropped calls: Re 1 per call, subject to a maximum of three rupees a day. **This was a violation of the licence conditions**
	+ **there exists no mechanism in the world to tell a dropped call from voluntary disconnection.** The **Trai penalty was open to abuse**. It would be perfectly possible for a rogue customer to disconnect a call and then claim compensation.
	+ What also contributed to the problem of dropped calls was **spectrum migration.** The first lot of spectrum was issued for 20 years, after which service providers had to buy it afresh. **Many bought spectrum in a different frequency subsequently. This led to customers migrating from one band to another, causing unavoidable technical glitches.** It takes up to a year to sort this out. Trai jumped the gun in imposing the penalty.
* The dropped-call penalty **would have raised the cost of doing business for the service providers**. Not only would they have to pay compensation, they would also have to set up call centres to handle compensation claims
* This case was being eagerly watched by other sectors as well which were worried that **they could be penalised for faulty service delivery, even if that is partly caused by circumstances beyond their control**
* The lesson to be learnt by regulators as well as the government is that **the quality of any service can improve only when the right inputs are available — a penalty cannot always solve the problem. Similarly, the issue of clogged telecom networks can be addressed through additional spectrum.**

**Penalty is right because :**

* Trai cannot be faulted for its intent: as the regulator, it should indeed worry about the quality of telecom services.
* One of the justifications for the penalty was that **the service providers had under-invested in equipment and the penalty would bring them to book.**

*Topic: Disaster management; Infrastructure*

[**4) “The recent disasters such as collapse of flyover in Kolkata, Chennai floods and many such incidents indicate the steady and continuing decline of the civil engineering profession in India, and this decline has its roots in policies mandated by the Comptroller and Auditor General in regard to the procurement of consultancy services.” Examine. (200 Words)**](http://www.insightsonindia.com/2016/05/14/4-recent-disasters-collapse-flyover-kolkata-chennai-floods-many-incidents-indicate-steady-continuing-decline-civil-engineering-profession-india-thi/)

[EPW](http://www.epw.in/journal/2016/19/perspectives/why-flyovers-will-fall.html)

**Background:**

* **Instances which prove the point:**
	+ The flyover under construction in Kolkata was presumably allowed under a design and build contract. There was **no independent designer answerable to the owner, to verify the construction**, and whose reputation hung on a trouble-free and successful outcome .
	+ The flooding that happened in Chennai might be attributed to heavy rain and the sudden opening of a dam’s floodgates. But what is inexplicable is the time it took for the water to recede. **This can only be because the city’s drainage systems have been compromised, and that can only happen if those in charge of systems do not have the ordinary competence that good civil engineering demands**.
	+ All one can blame is the decline of the profession, the ultimate root cause of which is the framework for procurement as determined, above all, by government’s audit arms .
* Ideally, given the experience their design and supervision staff had, BPT would have been ideal if the design and supervision staff had been hived off into an independently-managed consultancy firm.
	+ Similar is the case with the Brihan Mumbai Municipal Corporation. Even though the quality was good it could not serve a **wider clientele as the area of jurisdiction was confined to the employer.**

**Procurement problems:**

* Mixing financial bids with evaluation of merit is a sure way of ensuring that the best consultant will not be selected. In India the lowest bidder almost gets the project .
* In any case, savings in consultancy fees are often trivial in the context of the total project. Projects are awarded considering this as the prime point. Savings resulting from more efficient design, particularly at the conceptual stage, can far outweigh the total consultancy fee.
	+ One personal experience of a project in Bengaluru was the addition of a latecomer to the shortlist, on instructions from Delhi. This latecomer quoted a fee 1% below that of the best consultant.
	+ officers knew that by awarding work to the lowest the project cost would go up by 25%,**but their hands were tied by audit,**they had no option but to award the work to the lowest bidder.
	+ So the Comptroller and Auditor General (CAG)’s procedures complicated the process. It only achieved to contribute a poorer quality project at significantly higher total cost and all in the name of minimising corruption.
	+ The **long-term consequence of this consultant selection process has been that fees have steadily drifted downwards.** Consultants focus is no longer on keeping up with the latest developments, or on improving the quality of their work. The focus is on cutting costs.
	+ **CAG**– The very procedures are ignoring quality and even overall project costs, by insisting that each element be awarded to the lowest bidder, are hurting the country’s infrastructure in ways these audit officers are incapable of comprehending
	+ **Equally culpable perhaps are the government officers who award work**. They have a poor understanding of civil engineering matters because the education system in that branch has declined in step with the profession.
		- Nor have they had the advantage, in their subsequent careers, of learning from high quality professionals, because the system of procurement has ensured they learn only from the poorest ones.
		- But even if they know something is inadvisable, they prefer the route that will invite no audit objections. What does threaten to hurt them though is the consequence of not following stipulated procedure, **for which they will almost certainly be hauled up by audit. So their focus has to be on procedure, not outcome.**

**What can be done?**

* Learning the process from organisations like the World Bank can help as it had an excellent system of consultant selection.
	+ All those invited to bid were asked to submit their technical proposal and their financial bid in separate sealed envelopes.
	+ First, only all the technical proposals were opened.
	+ Selection was on merit alone, all aspects considered, usually by a committee.
	+ Then the financial bid of only the selected best consultant was opened.
	+ It was a simple way of ensuring that work was awarded to the best, or close to best consultant, evaluated on purely technical grounds, undiluted by monetary savings.
* Another simple way of selecting the best consultant **would be for the** **client to fix the fee he wants to pay**

*Topic: Prevention of money laundering*

[**5) Write a note on the Organisation for Economic Co-operation Development’s (OECD) base erosion and profit shifting (BEPS) initiative  and its importance for India. (200 Words)**](http://www.insightsonindia.com/2016/05/14/5-write-note-organisation-economic-co-operation-developments-oecd-base-erosion-profit-shifting-beps-initiative-importance-india/)

[EPW](http://www.epw.in/journal/2016/20/editorials/mauritius-no-longer-indias-treasure-island.html)

**Background:**

In an increasingly interconnected world, national tax laws have not always kept pace with global corporations, fluid movement of capital, and the rise of the digital economy, leaving gaps and mismatches that can be exploited to generate double non-taxation. This undermines the fairness and integrity of tax systems.

**Base erosion and profit sharing initiative:**

* Base Erosion and Profit Shifting (BEPS) refers to tax planning strategies that exploit the above gaps and mismatches in tax rules to artificially shift profits to low or no-tax locations where there is little or no economic activity, resulting in little or no overall corporate tax being paid.
* BEPS is of major significance for developing countries due to their heavy reliance on corporate income tax, particularly from multinational enterprises (MNEs).
* **The BEPS project was initiated by OECD as a response to the 2008 economic crisis to create sustainable economic growth, and step up the momentum of global recovery.**The idea is to strengthen “the foundations for long-term growth” and avoid policies that “promote growth at other countries’ expense”
* **The BEPS plan aims to improve transparency – for business and governments – by introducing commonly agreed minimum standards for tax administration across countries.** This includes alignment of taxation with the location of economic activity and value creation, reinforcing substance requirements in tax rules globally
* It has been urging governments across the globe to curb the misuse of tax havens for tax evasion and tax avoidance

**Importance of BEPS for India:**

* As part of G20, India has been very active in the Base Erosion and Profit Shifting (BEPS) project, working closely with the Organization for Economic Cooperation and Development (OECD)
* According to OECD estimates, BEPS measures will affect around 9,000 companies globally. In India **only the very large ones will be affected by these measures.**
* As BEPS recommendations come into force, tax experts say companies are **going to see greater need for sharing information, leading to increased transparency in their business operations globally**. Companies will have to think of what resources they need to meet country-by-country reporting requirements, and comply with enhanced transfer price rules.
* Adoption of the BEPS framework means multinationals will have to disclose their profits, number of employees and taxes paid in each country.
* **Start-ups** would have to think about taxation from day one. They can optimise their opportunities if they think about how they want to be structured from the very beginning
* This will **give tax authorities a clear picture** of the activities of an MNC in each country of operation. It will prevent these companies from shifting profits to shell companies in tax havens and boost governments’ revenues. **The compliance burden of MNCs will rise**.
* BEPS has perhaps inspired the government to introduce a 6% tax on ad revenues of MNCs being paid from India.
* The OECD and G20 countries including India have committed to address **treaty shopping** by agreeing to a minimum standard to provide a minimum level of protection against treaty shopping.
* With the **signature of India Mauritius treaty** the OECD BEPS initiative only gained strength.
* **Disclosures and information sharing:**
	+ The emphasis on transparency and exchange of information under the BEPS Action Plan will continue to add force to measures that are already being taken by India towards this end.
	+ Indian residents are required to disclose all assets and bank accounts located outside India and the recently enacted black money law prescribes stringent penalties and prosecution in relation to undisclosed foreign income and assets.
* **Impact on e-commerce and outsourcing:**
	+ the BEPS Action Plan suggests that the preparatory/auxiliary activity exemption may not apply if the foreign enterprise running the web platform has a warehouse in India and proximity to customers is integral to the business model.
* A **number of measures introduced by India** in the last few years have been aimed at countering BEPS. These include broad general anti-avoidance rules (“GAAR”), increased focus on economic substance, taxation of overseas transactions with underlying Indian interests, stringent disclosure norms, enhanced profit attribution to permanent establishments or via transfer pricing and other measures.
* **Changes in the transfer pricing guidelines may impact outsourcing arrangements** and there may be increased pressure on captive BPO and KPO entities to justify their profit margins in line with activities performed and the overall value generated.
* **In light of the GAAR rules it is also important to demonstrate substance and commercial justification of any overseas holding and investment structures.**

**Concerns:**

* The biggest issue with the BEPS initiative is the **lack of international consensus on the limits of a country’s legitimate tax base**. For instance, some of India’s views regarding taxing e-commerce transactions, services, overseas share transfers, and permanent establishments are inconsistent with global approaches and create a risk of double taxation.
* **A related issue is the sheer uncertainty that is inherent in anti-avoidance rules and, at times**, it is difficult to differentiate between what is permissible and what is not. The resulting litigation risks and compliance costs will have a big impact on MNC strategy and may further distort investment flows.
* The **BEPS Action Plan should not be implemented in a manner that increases the risk of double taxation.** India should also avoid unilateral measures that override tax treaties.
* India should also embrace international arbitration of tax disputes which several developed countries have endorsed as a best practice. It is also time for India to introduce a formal charter of taxpayer rights to provide further reassurance to investors.

*Topic: Issues related to IPR*

[**6) Recently, the union Cabinet approved the National Intellectual Property Rights (IPR) policy to foster and channelise creativity and innovation in the country. Discuss its salient features and significance. (200 Words)**](http://www.insightsonindia.com/2016/05/14/6-recently-union-cabinet-approved-national-intellectual-property-rights-ipr-policy-foster-channelise-creativity-innovation-country-discuss-salient-features-signi/)

[Down to Earth](http://www.downtoearth.org.in/news/cabinet-approves-country-s-first-ipr-policy-53951)

[The Hindu](http://www.thehindu.com/todays-paper/tp-national/ipr-ensures-safeguards-for-indian-pharma-industry/article8597889.ece)

[PIB](http://pib.nic.in/newsite/PrintRelease.aspx?relid=145338)

**Background:**

* The cabinet approved the National Intellectual Property Rights (IPR) policy to foster and channelise creativity and innovation in the country.
* The IPR policy comes in the backdrop of the US Trade Representative (USTR), in its annual (2016 edition) Special 301 Report (on the global state of IPR protection and enforcement) retaining India on the ‘Priority Watch List’ for “lack of sufficient measurable improvements to its IPR framework.”
* the IPR Policy will ensure that no changes are made in the Section (which prevents ever-greening of drug patents) as well as the patent-disabling Compulsory Licensing (CL).

**National Intellectual Property Rights (IPR) policy:**

* **It will provide**the future roadmap for intellectual property in India.
* The **Policy recognises the abundance of creative and innovative energies that flow in India, and the need to tap into and channelise these energies towards a better and brighter future for all.**
* The National IPR Policy is a vision document that **aims to create and exploit synergies between all forms of intellectual property (IP), concerned statutes and agencies.**
* It sets in place **an institutional mechanism for implementation, monitoring and review.**
* It aims to **incorporate and adapt global best practices to the Indian scenario.**
* This policy shall weave in the strengths of the Government, research and development organizations, educational institutions, corporate entities including MSMEs, start-ups and other stakeholders in the creation of an innovation-conducive environment, which stimulates creativity and innovation across sectors, as also facilitates a stable, transparent and service-oriented IPR administration in the country.

**Objectives:**

The Policy lays down the following seven objectives:

* **IPR Awareness: Outreach and Promotion** – To create public awareness about the economic, social and cultural benefits of IPRs among all sections of society.
* **Generation of IPRs** – To stimulate the generation of IPRs.
* **Legal and Legislative Framework** – To have strong and effective IPR laws, which balance the interests of rights owners with larger public interest.
* **Administration and Management** – To modernize and strengthen service-oriented IPR administration.
* **Commercialization of IPRs** – Get value for IPRs through commercialization.
* **Enforcement and Adjudication** – To strengthen the enforcement and adjudicatory mechanisms for combating IPR infringements
* **Human Capital Development** – To strengthen and expand human resources, institutions and capacities for teaching, training, research and skill building in IPRs.

**Significance:**

* The aim **was to create awareness** about the economic, social and cultural benefits of IPRs among all sections of society.
* The policy has been designed to lay stress on the need to facilitate entrepreneurship and enhance socio-economic and cultural development while also prioritising the **need for better access to healthcare, food security and environmental protection.**
* The Policy **recognizes that India has a well-established TRIPS-compliant legislative, administrative and judicial framework to safeguard IPRs,** which meets its international obligations while utilizing the flexibilities provided in the international regime to address its developmental concerns.  It reiterates India’s commitment to the Doha Development Agenda and the TRIPS agreement.
* These flexibilities include the sovereign right of countries to use provisions such as Section 3(d) and CLs for ensuring the availability of essential and life-saving drugs at affordable prices.
* An all-encompassing IP Policy **will promote a holistic and conducive ecosystem to catalyse the full potential of intellectual property for India’s economic growth and socio-cultural development** .Such a Policy will **nurture the IP culture** and address all facets of the IP system including legal, administrative and enforcement infrastructure, human resources, institutional support system and international dimensions
* It lends **strong words against theft and misappropriation of IP rights.**
* It offers an explanation of the decisions by courts and tribunals that might be seen as detrimental to foreign interests.

**Negatives:**

* The IPR policy is driven by the agenda of IP maximalism, where IP owners’ rights will be maximised at the cost of public interest. This (policy) will influence courts and judges.

With this draft plan, India appears to show that it is evolving on IP, while continuing to present a model to other developing countries of ways to ensure the system is employed in the best interest of the country.

*Topic: Conservation*

[**5) What are the conservation challenges faced by wildlife sanctuaries and national parks in India? Suggest solutions to address these challenges. (200 Words)**](http://www.insightsonindia.com/2016/05/16/5-conservation-challenges-faced-wildlife-sanctuaries-national-parks-india-suggest-solutions-address-challenges/)

[The Hindu](http://www.thehindu.com/todays-paper/tp-national/conservation-suffers-as-roadkills-in-chinnar-sanctuary-shoot-up/article8604942.ece)

**Conservation challenges:**

* Parks in India carry two prime objectives:
	+ first, protection from exploitation of the target species
	+ second, long-term preservation in a natural state.
	+ **Often such frameworks remain inflexible and exclusive to the local stakeholders.**
	+ **Continuous neglect of these dynamics produces an environment of mistrust and exploitation until the park itself becomes a potent and destructive symbol of disempowerment.**
* Conservation has suffered a severe jolt with roadkills in the Chinnar Wildlife Sanctuary accounting for a large number of fatalities over the past six months, **mainly owing to lack of strict measures to enforce speed limits on vehicles.**
	+ Experts found as many as 85 roadkills in the past six months within the sanctuary limits.
* uncontrolled passage of heavy vehicles during night-time.
	+ As per a government order, the speed limits on roads passing through forest areas are restricted to 30 km an hour and passage of heavy vehicles is banned during night-time.
* **Man-animal conflicts:**
	+ **No park exists in isolation**, and **that fact is becoming increasingly clear as the areas surrounding parks are developed for living space, agriculture, mining, forestry, and more**.
	+ The iconic species protected inside the parks don’t recognize boundaries and must often move in and out of the parks to feed, mate, or migrate.man animal conflicts like the leopard case in Bengaluru recently.
* **Invasive species:-**
	+ National parks are inviting places, especially for non-native species that can cause havoc once they move in.
	+ When turned loose with no competition, invasive species can run amok in an ecosystem and send a park’s native residents toward extinction.
	+ **Invasive species such as water hyacinth and Mimosa are great threats to Kaziranga**. Water hyacinth clog water bodies and depletes oxygen in the water. It threatens underwater life and shrinks the size of water bodies.
	+ Exotic leguminous species Mimosa was introduced in Tea gardens of Assam. The species have a poisonous amino acid (Mimosin). So, they are harmful for herbivorous
* **Habitat loss:**
	+ Due to flood and siltation, size of water bodies inside the park are shrinking. Siltation also affects the grazing areas of herbivorous animals.

·      **Poor infrastructure:**

o   Lack proper infrastructure and manpower for efficient monitoring, management and protection of wildlife.

o   The rangers and frontline staff deployed in many parks and sanctuaries lacks modern weapons, advanced communication systems and efficient means of transportation. There is also lack of proper camps and watch towers.

* Human interference:
	+ Examples of problems that occur due to human interference:
	+ Illegal livestock grazing, illegal fishing, unplanned tourism infrastructure, highway traffic, tourism pressure, crop raiding, etc.
	+ Due to lack of goodwill of state government, encroachment of land continues in Kaziranga area. The major threat is from the illegal Bangladeshis settling near the park.
	+ In recent year, numerous dhabas and so called resorts were established in sensitive zones of Kaziranga.
* No bottom up approach and involvement of community:
	+ The rural masses’ need for basic resources to meet their daily sustenance requirements is the major threat to preserving the integrity of India’s natural landscapes and wildlife habitats.
	+ There are several million more people living adjacent to the parks whose source of livelihood has legally been cut off by the creation of the national parks and sanctuaries.
	+ Many of these people have traditionally lived off the natural produce of the forest for generations. Over the past 25 years as the forests were turned into parks their traditional rights to use the land were taken away and their lifestyles were criminalized.
	+ Furthermore, the Indian Forest Service the agency responsible for managing all government lands including the protected areas has employed a top down approach as its management strategy.
* Mining, petroleum prospecting, clear-cut lumbering, and other developments are generally prohibited inside parks—but they still pose serious threats to water quality, clean air, and other vital aspects of the park environment.
* Some parks are already feeling drier these days, as increasing human demand shrinks supplies on which aquatic species depend
* Poaching:
	+ Poaching of wildlife is another cause of worry towards forest conservation. Some animals like tiger, are threatened due to loss forest habitat and poachers find it easy to kill tigers in absence of good forest cover where in tiger could hide earlier.
	+ Shrinkage of forest habitat has put many wildlife to come to sub-optimal habitat where there are more danger of being killed than finding means to survive.
	+ The poaching of Rhino in kaziranga park .Due to increased demand and high price of rhino horn in illegal markets, incidents of rhino poaching has increased in recent year.
* Natural disasters and uncertainty due to climate change:
	+ Flood is an annual feature of Kaziranga. Though it helps in maintaining a balance in vegetation, there are many side effects of flood.
	+ Annual flood leave the entire park in a state of disarray and confusion. It results in various problems including death of wildlife, shortage of fodder, malnutrition, highway accidents, communication interruption, damage to infrastructure, accelerated erosion, siltation etc.

**Solutions:**

* **WWF-India Eco-development project** aims to develop a model programme that can be used all over the country to help resolve this conflict.
* **Involve local communities in decision making like Critical tiger habitats Gram Sabha**is given importance similarly the forest rights act
* ***Wildlife***crossings are structures that allow ***animals*** to cross human-made .The ***park*** contains a wide variety of species and is bisected by a large commercial road called the Trans-Canada ***Highway*** (TCH).
* ***Implementing*the Gadgil committee and K Kasturirangan committee to water down the original recommendations, only to defer implementing even the compromised stipulations**
* Once the animal populations stabilized and the patrolling and monitoring mechanisms were in place, **the park authorities could concentrate on habitat management activities.**
* The park area was also doubled to include some of the adjoining forests and riverine areas
* **Primary infrastructure** such as all-weather approach roads and bridges to the park were constructed, and anti-poaching camps were reconstructed.
* **Patrolling and wildlife monitoring** had to be taken up on a priority basis and scientific studies to ascertain the status of key species have been undertaken with the help of research organizations.
* **Participation of local communities:**
	+ The participation of local youth has been actively sought for the management of Manas and its buffer regions.
	+ These youth were employed as conservation volunteers on a monthly stipend and ration.
	+ They assisted the forest department in surveillance and patrolling activities.
	+ **With the help of national and international nongovernmental organizations (NGOs), some of the youth were also trained to act as nature guides for small ecotourism enterprises**
	+ The local people now have a stake in protecting the park and a sense of pride in having such a biodiversity-rich area nearby.
	+ **Indirectly, the recovery of Manas has also generated broad environmental awareness and kept the local, semi-educated population employed**

*Topic: Achievements of Indians in science & technology; indigenization of technology and developing new technology*

[**6) Write a note on India’s Ballistic Missile Defence system and the progress made in establishing it. (200 Words)**](http://www.insightsonindia.com/2016/05/16/6-write-note-indias-ballistic-missile-defence-system-progress-made-establishing/)

[The Hindu](http://www.thehindu.com/todays-paper/tp-national/india-successfully-testfires-advanced-interceptor-missile/article8604947.ece)

[Wikipedia](https://en.wikipedia.org/wiki/Indian_Ballistic_Missile_Defence_Programme)

**Background:-**

* India’s BMD programme is a DRDO initiative to develop and deploy a multi-layered ballistic missile defence system which has been in the making since 1999.
* India’s home-made BMD programme encompasses a double-tiered system consisting of two interceptor missiles – **Prithvi Air Defence (PAD) missile for high altitude interception, and the Advanced Air Defence (AAD) missile for interception at lower altitudes.**
* Since the PAD was an air defence version of the already proven Prithvi surface-to-surface strike missile, it was the first of the two to be test-fired in 2006.
* The AAD which had to be developed almost ab initio was test-fired for the first time in 2007.
* **But after the first firing the AAD segment of the BMD programme took off, overtaking the PAD and claiming five successes out of the six endo-atmospheric test firings done till now**.
* On the exo-atmospheric front, to achieve the aim of intercepting enemy missiles launched from as far away as 2,000 km and for ensuring minimum fall of debris on the ground, it was necessary to modify the existing PAD missile (with an intercept ceiling of only 80 km) to enable interceptions at much higher altitudes.
* With the test of the PAD missile, India became the fourth country to have successfully developed an Anti-ballistic missile system, after United States, Russia, Israel

**Phase 1:-**

·      The Phase-I of Indian Ballistic Missile Defence Programme  have been completed and now India is running through the Phase II of its Ballistic Missile Programme that would be completed by 2016 to protect against missiles having range up to 5000 km.

o   **Prithvi Air Defence (PAD) / Pradyumna Ballistic Missile Interceptor:**

§  The **Prithvi Air Defence (PAD)** is an anti-ballistic missile developed to intercept incoming ballistic missiles outside the atmosphere (exo-atmospheric).

§  Based on the [Prithvi missile](https://en.wikipedia.org/wiki/Prithvi_missile), PAD is a two-stage missile with a maximum interception altitude of 80 km (50 mi).

§  The first stage is a Solid fuelled motor while the second stage is Liquid fuelled.

§  PAD has capability to engage the 300 to 2,000 km class of ballistic missiles

o   Prithvi Air Defence Exercise:

§  The PADE (Prithvi Air Defence Exercise) was conducted on November 2006 in which a PAD missile successfully intercepted a modified Prithvi-II Missile at an altitude of 50 km (31 mi).

§  The Prithvi-II [ballistic missile](https://en.wikipedia.org/wiki/Ballistic_missile) was modified successfully to mimic the trajectory of [M-11 missiles](https://en.wikipedia.org/wiki/Dongfeng_%28missile%29#Dongfeng_11_.28CSS-7.29).

o   Advanced Air Defence (AAD)/Ashwin Ballistic Missile Interceptor

§  Advanced Air Defence (AAD) is an anti-ballistic missile designed to intercept incoming ballistic missiles in the endo-atmosphere at an altitude of 30 km.

§  AAD is a single-stage, solid-fuelled missile. Guidance is similar to that of PAD.

§  Despite setback initially AAD intercepted and destroyed a Prithvi ballistic missile fired from a ship recently.

* [Swordfish](https://en.wikipedia.org/wiki/Swordfish_Long_Range_Tracking_Radar) is the target acquisition and fire control radar for the BMD system

**Phase 2:-**

* Two new anti ballistic missiles that can intercept IRBMs are being developed.
* These high speed missiles (AD-1 and AD-2) are being developed to intercept ballistic missiles with a range of around 5,000 km.
* The test trials of these two systems are expected to take place in 2011. The new missile will be similar to the [THAAD](https://en.wikipedia.org/wiki/THAAD) missile deployed by the US.
* India is also **planning to develop a laser based weapon system** as part of its defence to intercept and destroy missiles soon after they are launched towards the country.
* **PDV:-**
	+ In 2009, reports emerged of a new missile named the PDV.
	+ **The DRDO is developing a new Prithvi interceptor missile codenamed PDV**.
	+ It will be a two-stage missile and both the stages will be powered by solid propellants. It will have an innovative system for controlling the vehicle at an altitude of more than 150 km
	+ The PDV is intended to replace the existing PAD in the PAD/AAD combination
	+ The PDV is designed to take out the target missile at altitudes above 150 km (93 mi).The first PDV was successfully test fired in 2014.
* In order to ward off the threats of nuke-tipped cruise missile attack India has a new missile defence programme which will be focused solely on intercepting cruise missiles. The technological breakthrough has been created with an Advanced Air Defence missile (AAD)
* India is acquiring airborne radars like [AWACS](https://en.wikipedia.org/wiki/Airborne_early_warning_and_control) to ensure detection of cruise missiles in order to stay on top of the threat.
* [**Barak-8**](https://en.wikipedia.org/wiki/Barak-8)is a long-range anti-air and anti-missile naval defence system being developed jointly by [Israel Aerospace Industries](https://en.wikipedia.org/wiki/Israel_Aerospace_Industries) (IAI) and the [Defence Research and Development Organisation](https://en.wikipedia.org/wiki/Defence_Research_and_Development_Organisation) (DRDO) of India.
* Recently developed, **India’s**[**Akash**](https://en.wikipedia.org/wiki/Akash_%28missile%29)**missile defence system** also has the capability to “neutralise aerial targets like fighter jets, cruise missiles and air-to-surface missiles”.

*Topic: Major crops cropping patterns in various parts of the country*

[**5) Discuss how diversification and adjustment of cropping patterns can mitigate the impact of droughts on the lives of the rural poor in India. Also examine the role of governments in this regard. (200 Words)**](http://www.insightsonindia.com/2016/05/19/5-discuss-diversification-adjustment-cropping-patterns-can-mitigate-impact-droughts-lives-rural-poor-india-also-examine-role-governments-regard/)

[Livemint](http://www.livemint.com/Politics/Br1LKpmhz00EmyHfq3HvQO/Drought-affected-Karnataka-wants-farmers-turn-to-water-conse.html)

[The Indian Express](http://indianexpress.com/article/india/india-news-india/maharashtra-water-crisis-crop-pattern-drought-2755744/)

**How diversification and adjustment of cropping patterns can mitigate the impact of drought and rural poor:**

**Diversification:**

* Diversification and adjustment of cultivated crops is a traditional adaptation practice contributing to **minimize the risk of crop failure due to drought.**
* diversification may be **achieved by integrating multiple production systems,** such as mixing agroforestry management with cropping, livestock, and fallow to create a highly diverse piece of agricultural land
* **Growing two or more crop species and wild varieties within the field,polycultures,Agroforestry,pest suppression, Growing crops and trees together all these are possible because of diversification.**
* Resilient agroecosystem will continue to provide a vital service such as food production if challenged by severe drought or by a large reduction in rainfall. In agricultural systems, crop biodiversity may provide the link between stress and resilience because a diversity of organisms is required for ecosystems to function and provide services

**Cropping patterns:**

* The predominant cropping pattern in India rice-wheat system is a groundwater exploitating system especially in the areas of drought.
* The introduction of more drought-resistant crops and cropping patterns are important options to help reducing vulnerability to climate change.
* **Bangladesh case study:**
	+ **The following crop patterns** have proved to be the most successful in the context of drought management tested in Northwest Bangladesh between 2008 to 2010:
	+ Potato-Maize cropping pattern was accepted as profitable by farmers in areas where minimal irrigation facilities are available, and is therefore to be considered suitable to drought-prone areas.
	+ Mustard, chickpea and mung bean are suitable crops for exploitation of residual moisture after rice
	+ The pulses and oil seeds in principally mono-cropped areas could increase the nutritional security of the local people.
* Like states such as Maharashtra and Uttar Pradesh, Karnataka is reeling under severe agrarian distress.Rationalising cropping patterns would avoid this.
	+ A lot of the area increase of these crops have actually come at the cost of ragi and jowar and the government is trying to reverse that trend
* According to experts, **with only 12 percent area under irrigation, opting for sugarcane and soybean has turned out to be a bad idea.** Not only does it affect the farmer, but it also affects the fodder availability for cattle as well.
* Drastic fall in *jowar*and *bajra* has hampered the availability of dry and green fodder.
* digging of borewells for extracting groundwater not only ruins the fertility of the soil but also depletes groundwater level. The groundwater drawn from a single borewell in a farm creates shortage for other farms in the vicinity.
* **Sugarcane crushing:**
	+ The practice, which usually begins in October, requires tremendous amounts of water.
	+ According to this **report by SANDRP**, a factory that can crush about 2,500 tons of cane per day on an average needs 25,00,000 liters of water per day.
	+ This problem would not occur because of proper cropping patterns and diversification.

**Role of governments:**

* **Karnataka-**
	+ incentive structure put in place to boost crop area of millets like ragi and jowar, which use less water to grow, as well as disincentivise water-guzzling crops like maize.
	+ The procurement price for ragi is now 28% more than the central minimum support prices (MSPs) of 1650 (per quintal).
	+ The government is also planning to supply more millets through the state’s public distribution system, increasing the existing 30kg for Rs.1 distribution for poor families under a flagship scheme called *Anna Bhagya*
* **Millet cultivation:**
	+ Tamilnadu:
		- The government along with civil society is trying to convert fallow lands into millet farms.
	+ Andhra Pradesh:
		- In Andhra Pradesh, NGO-led community movements are promoting millet cultivation.
	+ In Orissa, the government is taking some steps to increase the area of millet cultivation.
	+ In Maharashtra, the government has already announced subsidies for millets,”
	+ **Maharashtra:**
		- The state government is promoting crop patterns suitable to drought-hit Marathwada and Vidarbha regions, and is roping in agriculture research council and universities to provide crops with shorter life-cycle to sustain agriculture in the dry belt.
		- Apart from crops like cotton, sugarcane, jowar and tur dal (pulses), there is **emphasis on promoting horticulture and floriculture under controlled water and temperature technology to ensure assured income for farmers**.
		- The region-wise crop pattern changes are being modelled, and would be discussed with farmers in the next two months.
		- While the **decision to enforce drip irrigation for sugarcane will be mandatory from next season,** **the campaign to intensify beyond cane cultivation is being pushed** in entire Marathwada and parts of Western Maharashtra such as Solapur which is drought prone.
		- Adopting scientific methods would help minimise financial risks in the agro-sector.
		- promoting cultivation of “jerbera” flowers which do not require intense water. There is a move to promote tur dal in the drought belt as it is not a highly water intensive crop. The centre and the state are giving incentives to promote tur dal cultivation and oilseeds in some parts.
	+ Recently, the government with the aid of World Bank advocated to establish a company for individual and group of farmers **for group farming.** Such initiatives will definitely boost the morale of farmers and help in lowering suicide rates
	+ Pradhan Mantri Fasal Bhima Yojana
	+ Pradhan Mantri Krishi Sinchai Yojana
	+ NDMA drought preparation plan
	+ National Mission on climate resilient agriculture.
	+ The short, inter- crop cycle is also being re-looked to promote seasonal vegetables and fruits in small land holding.

**What needs to be done further?**

* However, diversification can be further strengthened by interactive systematic testing, selection and dissemination of appropriate crops and varieties. This may be accomplished in a **participatory way between research institutions and farmers (groups).**
* Watershed management, changing cropping pattern, focussing on agro-forestry, tree-farming and allied sectors like poultry and dairy – to mitigate drought. **It is now that the region is facing severe water crisis in years, Maharashtra has actively started implementing measures like Jalyukt Shivar to conserve water**
* The tendency of farmers favouring mono-cropping should be replaced with intercropping. Instead of growing a single cash crop like sugarcane or soybean, farmers should grow *jowar*along with *tur*in a 4:2 ratio or *bajra* and *tur* in 3:3 ratio.
	+ This minimises the risk of production. Legumes like pea, cow or chick pea, *masoor,*beans etc are considered most ideal for this practice,” he said.
* Water budgeting and changing the water pattern to their cropping pattern. Based on the quantitative assessment like – how much water falls on the land, water percolation rate, how much rainwater is retained – the communities need to be informed about what kind of crops can be grown and livestock to rear. This has to be done through a local channel.
* **Organic farming:**
	+ improving the fertility of the soil by using crop residues, compost and manure, can be considered as one of the plausible long-term measures..
* **Borewell recharger** which enables groundwater recharge. This recharger pulls in diverted stray rainwater from the rooftops and surface with the help of filter beds using percolation tanks, nala bunds, individual open wells and borewells.
* **Protected cultivation:**
	+ Another strategy gaining popularity in Maharashtra is protected cultivation, which is done with the help of green houses and shade nets.
	+ This helps in protecting the crops during hail storms, frosts, heat and cold waves. This is not only a climate resilient strategy but also makes maximum use of water and nutrients.
* **Research and development:**
	+ Agricultural scientists have been grappling with an acute shortage of manpower.
	+ States should also look into strengthening research and development team in agricultural universities which will not only help in bringing together scientists for new ideas and policy formation but also create an action plan for drought management.

*Topic: Economic growth and development*

[**6) What are the relative merits and demerits of GDP as a tool to measure the economic performance of a nation? Has it outgrown its utility? What alternatives measures can be used to measure well-being of a nation? Examine.  (200 Words)**](http://www.insightsonindia.com/2016/05/19/6-relative-merits-demerits-gdp-tool-measure-economic-performance-nation-outgrown-utility-alternatives-measures-can-used-measure-well/)

[The Hindu](http://www.thehindu.com/todays-paper/tp-opinion/a-work-in-progress/article8618047.ece)

**Merits of GDP as a tool to measure the economic performance of a nation:**

* **GDP consists of consumer spending, Investment expenditure, government spending and net exports hence** it portrays an all inclusive picture of an economy because of which it provides an insight to investors which highlights the trend of the economy by comparing GDP levels as an index
* **GDP is used as an indicator for most governments**and economic decision-makers for planning and policy formulation
* **In case of GDP, each component is given the weight of its relative price.** In market economics it clicks as prices reflect both marginal cost of the producer and marginal utility for the consumer, i.e. people sell at a price that others are willing to pay
* **GDP helps the investors** to manage their portfolios by providing them with guidance about the state of the economy
* **Calculation of GDP provides with the general health of the economy.** A negative GDP growth portrays bad signals for the economy. Economists analyse GDP to find out whether the economy is in recession, depression or boom
* GDP growth over time enables central banks and policymakers to evaluate whether the economy is in recession or inflation. In that sense it is still required.
* Also, GDP has held significance as a universal metric over the years.

**Demerits:**

* However, with rapid globalization and technology-oriented integration among countries, this metric has become outdated and does not accurately take into consideration other aspects like the wellbeing of the residents of a country.
* The most significant weakness of GDP is its exclusion of voluntary market transactions.
* GDP as a measure of economic growth fails to account for productive non-market activities
	+ like a mother taking care of her child
	+ a homemaker doing household chores
	+ a homeowner doing maintenance of his house
	+ leisure (paid vacation, holidays, leave time)
	+ improvement in product quality, etc.
* GDP also ignores important factors like environment, happiness, community, fairness and justice. But these are important aspects of development.

Thus, there is a need for alternative measures which can take into consideration other key factors like hunger and malnutrition, safety parameters, literacy rate and tolerance.

**Alternatives:**

* Some of the recent approaches have tried to go beyond GDP and incorporate most of these factors into the measurement of the well-being within the society.
* **GINI coefficient:**
	+ measures the income inequality among a country’s citizens — but it fails to measure social benefits or interventions that reduce the gap or inequality between rich and poor.
* HDI (Human Development Index)
	+ overcomes most of the shortcomings of the Gini coefficient and GNH.
	+ However, HDI, as a measure, falls short in its capture of the unequal distribution of wealth within the country and the level of infrastructural development.
	+ Many prospects of a healthy society, such as environmental sustainability and personal rights, are not included in HDI.
	+ It is not successful in tracking the apparent progress of countries, nor is it sufficiently factorised into primary level parameters to indicate many important areas of policy.
* GNH (Gross National Happiness):
	+ measures the happiness levels of the citizens in a country while it ignores other important elements like gender equality, quality education and good infrastructure.
* After this, Millennium Development Goals and Sustainable Development Goals were also built along various dimensions based on the work done in understanding human development.
* **SPI as complementary index**
	+ It goes beyond the traditional measure of GDP and has most parameters that are required to fulfil SDGs.
	+ SPI is based on three fundamental pillars:
		- basic needs for survival
		- access to the building blocks to improve living conditions
		- access to opportunity to pursue goals and ambitions.
	+ One significant difference between GDP and **SPI is that SPI focusses on outcomes rather than inputs that are used in GDP**. For example, **the quality of life and longevity are measured instead of spending on health care,** and people’s experience of discrimination is looked at instead of focussing on whether there is a law against discrimination.
	+ **SPI also reframes the fundamentals about development** by taking into consideration not just GDP but also inclusive, sustainable growth that will lead to a significant improvement in people’s lives.
	+ **SPI can best be described as a complementary index to GDP and can be used along with GDP to achieve social progress.**
	+ With the move to getting it introduced at a sub-national level, the index is expected to help development practitioners and other stakeholders in analysing well-being in a better manner.

*Topic: Economic growth, planning*

[**7) In 2011, an experts’ committee headed by C Rangarajan had proposed that the distinction between Plan and non-Plan expenditure be abolished for both the Centre and the states. Examine the rationale behind such a proposal. (200 Words)**](http://www.insightsonindia.com/2016/05/19/7-2011-experts-committee-headed-c-rangarajan-proposed-distinction-plan-non-plan-expenditure-abolished-centre-states-examine-ra/)

[Business Standard](http://www.business-standard.com/article/economy-policy/framework-for-abolition-of-plan-non-plan-classification-soon-116051801518_1.html)

**Background:**

The government is likely to bring out a framework to remove the existing Plan and non-Plan expenditure classifications from future Budgets, switching to a more globally relevant system of classifying spending as revenue expenditure and capital expenditure.

**The proposal is rational and benefits :**

* **In the backdrop of the abolition of the Planning Commission and setting up of the NITI Aayog,** the classification of expenditure as Plan and non-Plan is in the way of losing its relevance.
* government wants to remove the distinction as it has become dysfunctional and an **obstacle in outcome-based budgeting**.The move will link government spending to its eventual outcome more effectively.
* The distinction between plan and non-plan expenditure has caused many more problems than mere segmentation of expenditure into the arbitrary plan and non-plan’classifications, **fostering a rather limited and fragmented view of resource allocation.**
* Such classification has given rise to an inherent bias in favour of plan expenditure and against non-plan and enforced a notion that plan expenditure was good and **non-plan expenditure was bad.**
	+ This has led to a situation where the non-plan expenditure essential for the maintenance of valuable assets like roads, project assets, buildings and assets for delivery of public goods and services created under the various plan schemes have systematically been neglected over the years, leading to progressive deterioration in the quality of public services.
* Removing the plan non-plan distinction and realigning the budget and accounting classification**would be the first step towards restoring sanity in India’s public financial system**
* Once this distinction is removed, many things will automatically fall in place, and some others will have to be corrected, like rationalisation of the endless mechanisms devised to finance the plethora of our plan projects

*Topic:*Resource mobilization

[**3) In the past, A number of committees have recommended consolidation of banks and recently SBI has initiated discussions for its merger with its associates. Discuss the rationale behind consolidation and examine if now is the right time for this. (200 Words)**](http://www.insightsonindia.com/2016/05/20/3-past-number-committees-recommended-consolidation-banks-recently-sbi-initiated-discussions-merger-associates-discuss-rationale-behind-consolidation/)

[Livemint](http://www.livemint.com/Industry/VF9DaLm5Fto9iVjASG6v5K/Bank-consolidation-An-idea-whose-time-has-come.html)

**Rationale behind bank consolidation:**

* **SBI:**
	+ There are significant overlaps between SBI and its associates.
	+ They target similar client bases, at least in larger cities. Yet they run separate infrastructures from IT systems to treasuries to compliance and risk management systems.
	+ **Integrating these systems and eliminating the overlaps will save cost and capital.**
	+ **The combined bank would have assets of $550 billion and put SBI in the league of the top 50 global banks. India needs at least one such lender.**
* The need to have large banks cannot be over emphasised. No bank in the country features in the top ten banks in the country, in terms of asset size.
* consolidate lenders focused on individual regions. For instance, merge an eastern India-focused bank with one that has strength in the south. In turn, **you create fewer banks with a wider network.**
* Given the **huge large infrastructure needs** of the country, large banks are required to finance it. The merged entity will have more leg room to raise capital.
* Consolidation **will also increase capital efficiency**, apart from improving **the ability of banks to recover bad loans** which are rising.
* It is also felt that a larger bank may be less risky than a smaller bank as the larger bank will have **a more diversified portfolio** resulting in less volatility in its earnings.
	+ These large banks in a consolidated banking system enjoy scale benefits leading to better diversification of risks and stronger overall profitability contributing to higher credit ratings

**Yes it’s the right time for consolidation:**

* The need for consolidation is specially felt now, due to the fact that although India is seventh largest economy in the world in terms of nominal GDP, there is no Indian bank in the list of 70 large banks in terms of asset size.
	+ As large banks reap certain advantages in terms of efficiency, risk diversification and capacity to finance large projects.
	+ The efficiency gains resulting from lower cost of services and higher quality of services is too attractive to ignore.
* However, in the context of India, it is felt that there is ample room for consolidation in the banking sector, especially among PSBs without creating issues of moral hazard or too big to fail concerns.
* There are 48 domestic banks (excluding RRBs and LABs) out of which there are 27 PSBs having a market share of around 70% in terms of asset size. A comparison of performance of larger PSBs with smaller PSBs does indicate that **larger PSBs perform better.**
	+ For example, among all PSBs, larger PSBs like SBI and Bank of Baroda are trading at higher Price to Book Value ratio in comparison to other smaller PSBs.
	+ SBI has been able to maintain relatively strong capital ratios and appears to be in a better position to withstand shocks to asset-quality. This indicates that under Indian conditions, there is lot of scope for banks to grow in size
* **Higher credit:**
	+ The other important aspect which needs to be considered is credit demand of a growing economy. As Indian companies increase their business and become global in nature, their demand for large scale credit will become higher.
	+ Banks also have to grow in size to meet the higher demand of credit. The banking system will be required to enhance its capacity to lend to larger companies and to larger projects.
	+ With increase in credit penetration and as credit to GDP ratio increases from present levels of 50 percent, PSBs with a market share of over 70 per cent need to contribute significantly in the process.
	+ **Without strong PSBs which are efficient, competitive and well-capitalised, meeting higher demands of bank credit would be quite challenging in future.**
* Recent proposals on Large Exposure norms which limit banks’ exposure to a group by 25% of their common equity will further limit their capacity to fund large credit demands. **It is therefore imperative that some consolidation among PSBs do happen to support the growth potential of the economy.**
* After the crisis, internationally there has been a **significant tightening of regulatory norms**.
	+ G-SIBs are required to maintain higher amount of common equity capital than other banks.
	+ G-SIBs will be required to meet the Total Loss-Absorbing Capacity (TLAC) requirement alongside the minimum regulatory requirements set out in the Basel III framework.
	+ Specifically, they will be required to meet a Minimum TLAC of at least 16% of the resolution group’s risk-weighted assets (TLAC RWA Minimum) from 1 January 2019 and at least 18% from 1 January 2022.
	+ These regulatory requirements have compelled many of these internationally active banks to reframe their business strategies into downsizing, quitting some businesses and some jurisdictions.
	+ This provides an opportunity for EME banks who have global ambitions, a ready business and market space. **If we have good large banks, such banks can tap these opportunities and can become global banks.**
	+ Thus we can see that right now the time is ripe for consolidation in the public sector bank space
* it’s the right thing to do **since there is a slight uptake in theeconomy**

**No,its not:**

* current times is not the opportune time for consolidation and that the **need of the hour presently is to strengthen the banks by empowering them with operational flexibility**be it in the area of recruitment, or in differentiation on core capabilities
* The other area is which should be the criteria for identifying banks for merger is the **technology platform.**
	+ Different banks have different technology platform which are developed by IT majors like Infosys and Tata Consultancy Services, to name a few.
	+ **To merge two banks having different platform, could be a challenging task**
* In last Gyan Sangam, **bankers opposed the idea on ground that the health of their respective banks does not allow to takeover other banks.** The situation has not improved in one year, rather it has further deteriorated .
	+ **Many banks, including the likes of Bank of Baroda, IDBI Bank, Bank of India reported record losses.**
* **Employee unions and the employees who may fear identity loss.** The unions have already started opposing the proposed privatization of IDBI Bank
* Today the PSU banks still control over 70 per cent of the deposits and advances in the industry, but the entire pack mirrors each other in terms of performance.
	+ Take for example, the State Bank of India (SBI) has a balance sheet size of over 3.5 times larger than the sixth-largest HDFC Bank, but **the largest bank in the country lags behind in terms of market valuation**. HDFC Bank has a market capitalization of Rs 2.56 lakh crore as against SBI’s Rs 1.41 lakh crore.
* **merging two weak banks or a weak bank with a strong bank will create or make the merged entity unhealthy**
* This is **not the right time for** banks merger as the entire banking pack is facing challenges because:
	+ The operating environment is wobbling
	+ the corporate sector is over-leveraged
	+ banks have bare minimum capital
	+ the NPAs are skyrocketing  and
	+ profitability is at the lowest level.
	+ There is a complete non-interest of investors in the PSU banks
* **The rural strength, not any more:**
	+ The PSU banks have survived so long as they have a good presence in the rural and semi-urban market because of a strong brand and branch network.
	+ Now the entire rural banking model is itself changing with**new Small Finance banks.**
* **Merger Pangs:**
	+ The merger challenges are going to be huge as they do not have experience in dealing with people and cultural issues or merging products .
	+ In the past, even many private sector banks have struggled in such mergers.
	+ The HR being the top most concern as salary, seniority, postings etc will create a big challenge
* **Danger to financial stability**:
	+ Given the track record of PSUs, the new entities, say 5 or 6 large banks, could be a danger to  financial stability.
	+ **Any bank failure would create multiple problems for the system as well as for the economy.**

*Topic:*Resource mobilization

[**4) Why did Mauritius become a tax haven? The recent amendment to the over three decade old Double Taxation Avoidance Treaty (DTAA) between India and Mauritius has been seen as a progressive and much overdue tax reform measure. Are there any concerns expressed on this amendment? Examine. (200 Words)**](http://www.insightsonindia.com/2016/05/20/4-mauritius-become-tax-haven-recent-amendment-three-decade-old-double-taxation-avoidance-treaty-dtaa-india-mauritius-seen-progressive-much-o/)

[Business Line](http://www.thehindubusinessline.com/todays-paper/tp-opinion/bad-offshoot-of-mauritius-tax-treaty/article8622602.ece)

**Background:-**

* Thirty three years back **Government of India negotiated a Double Taxation Avoidance Agreement (DTAA) with Mauritius.**
* Under this, tax payers who reside in one country and earn their income in another would not be taxed twice for the same income. **However, this had, in effect, led to a situation where the entities concerned would avoid paying taxes in both countries.**
* **Mauritius and other tax havens have almost negligible taxes**. This is encouraging resident Indian entities to route their investments back to India through Mauritius and avoid paying taxes
* **At $64billion, it is the largest foreign direct investment source for India, accounting for 38% of total FDI.**
* Investors route money into India through Mauritius and use double tax treaty to prevent India from charging capital gains tax on these investments.
* The result of this arrangement is that from 2000 to 2013, $72 billion has flowed into India from Mauritius.This represents 38% of cumulative equity inflows into India over this period.
* According to the tax treaty between India and Mauritius, **capital gains can only be taxed in Mauritius**, the same treaty exist with 16 other countries.
* But with only 3% of capital gains tax, the quality of its service and regulatory framework, its pool of professionals, geographical proximity, cultural affinities and long historical ties with India,**Mauritius is the most attractive conduit for investments into India.**

**Concerns:-**

* The new protocol **does not discriminate** between money meant forbona fide economic activity and that which originates from dubious sources shell companies, foundations and NGOs with security implications. This issue doesn’t have much clarity.
* A more likely consequence of this protocol is that **good investment will start shrinking and illegitimate investments will thrive.**
* It **could hurt short-term foreign investor inflows into India** particularly from companies whose investment strategies are guided by minimising taxes. **This could pull down markets initially.**
* **Many foreign investors will have to redraw their strategies**.The incentive to route investments through Mauritius will cease to exist once the new rule kicks-in. This could raise their tax outgo.
* The new arrangement, marked by a concessional capital gains regime for two years, kicks in in 2017, and a new agreement by 2019. **That will be the true test of capital flows and investment and investor confidence.**

*Topic:*Latest developments in S&T

[**5) Last month, the draft guidelines for civil UAV (unmanned aerial vehicle) operations were announced by the DGCA (directorate general of civil aviation). Discuss the increasing applications of UAV in civilian field and regulatory issues they face. (200 Words)**](http://www.insightsonindia.com/2016/05/20/5-last-month-draft-guidelines-civil-uav-unmanned-aerial-vehicle-operations-announced-dgca-directorate-general-civil-aviation-discuss-increasing-applications-uav/)

[Business Line](http://www.thehindubusinessline.com/todays-paper/tp-opinion/making-drones-serve-us-better/article8622594.ece)

**Background:**

* Last month, the draft guidelines for civil UAV (unmanned aerial vehicle) operations were announced by the DGCA (directorate general of civil aviation) clearing the way for a long pending demand by the UAV community in India.
* The draft guidelines recently **issued call for the requirement of UAOP (unmanned aircraft operator permit) for all UAV operators as well as a UIN (unique identification number) for all UAVs.**
* While the registration of UAVs and their operators is a must, the operational limits of micro as well as the mini UAVs range has been restricted to meagre 500m.

**Applications of UAV in civilian field:**

* Civil uses include aerial crop survey,aerial photograpy, search and rescue, inspection of power lines and pipelines, counting wildlife,delivering medical supplies to otherwise inaccessible regions, and detecting detection of illegal hunting, reconnaissance operations, cooperative environment monitoring, border patrol missions, convoy protection, forest fire detection and monitoring, surveillance, coordinating humanitarian aid, plume tracking, land surveying, fire and large-accident investigation, landslide measurement, illegal landfill detection, the construction industry and crowd monitoring.
* US government agencies use UAVs such as the [RQ-9 Reaper](https://en.wikipedia.org/wiki/RQ-9_Reaper)to patrol borders, scout property and locate fugitives.
* Private citizens and [media organizations](https://en.wikipedia.org/wiki/Drone_journalism)use UAVs for surveillance, recreation, news-gathering, or personal land assessment.
* In February 2012, an [animal rights](https://en.wikipedia.org/wiki/Animal_rights)group used a [MikroKopter](https://en.wikipedia.org/wiki/MikroKopter)  hexacopter to film hunters shooting pigeons in South Carolina. The hunters then shot the UAV down.
* **Commercial aerial surveillance**:
	+ [Aerial surveillance](https://en.wikipedia.org/wiki/Aerial_surveillance)of large areas is possible with low-cost UAS. Surveillance applications include livestock monitoring, wildfire mapping, pipeline security, home security, road patrol and antipiracy.
* **Conservation:**
	+ In June 2012,[World Wide Fund for Nature](https://en.wikipedia.org/wiki/World_Wide_Fund_for_Nature) (WWF) announced it would begin using UAVs in [Nepal](https://en.wikipedia.org/wiki/Nepal) to aid [conservation](https://en.wikipedia.org/wiki/Conservation_movement) efforts following a successful trial of two aircraft in [Chitwan National Park](https://en.wikipedia.org/wiki/Chitwan_National_Park).

##### ·      **Pollution monitoring**

##### o   UAVs equipped with air quality monitors provide real time air analysis at various elevations.

##### ·      **Oil, gas andmineral exploration and production**

##### o   UAVs can be used to perform geophysical surveys, in particular geomagnetic surveys

##### ·      **Disaster relief**

##### o   Drones can help in disaster relief by providing intelligence across an affected area.

##### o   [T-Hawk](https://en.wikipedia.org/wiki/Honeywell_RQ-16_T-Hawk) and [Global Hawk](https://en.wikipedia.org/wiki/Northrop_Grumman_RQ-4_Global_Hawk) drones were used to gather information about the damaged [Fukushima Number 1 nuclear plant](https://en.wikipedia.org/wiki/Fukushima_Daiichi_Nuclear_Power_Plant) and disaster-stricken areas of the [Tohoku region](https://en.wikipedia.org/wiki/T%C5%8Dhoku_region) after the [March 2011 tsunami](https://en.wikipedia.org/wiki/2011_T%C5%8Dhoku_earthquake_and_tsunami).

##### ·      **Cargo transport**

##### o   UAVs can transport medicines and medical specimens into and out of inaccessible regions.

##### o   In 2013, in a research project of [DHL](https://en.wikipedia.org/wiki/DHL_Express), a small quantity of medicine was delivered via a UAV

* **Agriculture**
	+ Japanese farmers have been using Yamaha’s R-50 and RMAX unmanned helicopters to dust their crops since 1987.
	+ Some farming initiatives in the U.S. use UAVs for crop spraying, as they are often cheaper than a full-sized helicopter.
* UAV technologies usher in efficiency into a system and significantly bring down costs in the medium to long run.
* Amazon has announced its “Prime Air,”a delivery system it says will eventually allow the company to “to safely get packages into customers’ hands in 30 minutes or less” using small drones.

**Regulatory issues they face:**

* A growing number of drones have been flown dangerously close to commercial aircraft, **violating federal rules about their operation**. In USA,as of late last year, 36 states had introduced legislation to protect individuals from drone-related privacy invasion issues.
* It also brought both federal and state scrutiny to the issue of drones being turned into potential weapons.
* Drones are also creating new questions for the **insurance industry,** especially when it comes to property damage and liability.
	+ These potential legal issues, combined with the uncertain regulatory atmosphere make insurance underwriting for [drone](http://www.cbsnews.com/drones/)liability a challenging endeavour
* The **major issue for these companies is the current lag time between drone technologies and official policies about drone usage.**
* The bigger problem will be how delivery drones interact with noncommercial drones that share their airspace.
* the recent Indian draft regulations seem to be **overly complicated and restrictive**, and **may be hard to enforce in practice**.
* In sum, **a lot of paperwork**from government departments must be accumulated before the applications for operator permits can be made.
* It is also possible that **huge commercial opportunities are being stifled**before even being conceptualised by the stringent nature of the area-based bans and the insistence on visual line-of-sight operations.
* In effect, given the number of “sensitive installations”, and the discretionary permissions, **very little airspace may be available.**
* Already, **multiple types of drones are easily available**, with the cheapest ones costing less than Rs 1,500 a piece.
* If permissions are too tedious or difficult to get, there will be a **temptation to cut corners and just ignore regulations.**Drones have already proliferated and, given sensible regulations, the market could explode

**What needs to be done?**

* There **should be a specific time limit for the grant of numbers and permits**.
	+ The requirement of an ADC clearance for operations below 200 ft AGL may be restricted to only notify in places where there are defence establishments and air force stations, in other areas DM (district magistrates) permission may be sufficient.
* The DGCA may charge a reasonable fee for the service but calling **applicants to the office should be occassional** until and unless there are doubts about the integrity of the applicant.
* The form for obtaining certificate of character from the sub-divisional officer police should be prescribed by the DGCA and **there should also be no restriction on the import of parts for UAVs.**
* The **guidelines pertaining to the participation of foreign operators should also be included in the revised draft** and discussed with the stakeholders prior to finalisation, **as not doing so could become an impediment in the key areas related to training, testing, technology transfer, MRO (maintenance, repair and overhaul) of UAV’s and may eventually affect the ‘Make in India’ initiative,** where foreign participation will be a necessity.
* The **DGCA regulations must provide for a level playing field for the private sector** so that innovation, growth and more importantly adopting of UAV technologies by end users can become commonplace.
* The DGCA must initiate multi stakeholder engagement process to develop a framework for privacy, accountability, and transparency issues concerning commercial and private UAV use in line with the PM’s policy of ease of doing business.

*Topic:*Indian Economy

[**6) The Reserve Bank of India and the finance ministry are agreed that the CPI would be the sole parameter to set policy rates and anchor inflationary expectations. Discuss why. Also examine what implications would recently revised base year and weights for the various goods and services in the consumer price index (CPI) will have on policy rates.  (200 Words)**](http://www.insightsonindia.com/2016/05/20/6-reserve-bank-india-finance-ministry-agreed-cpi-sole-parameter-set-policy-rates-anchor-inflationary-expectations-discuss-also-examine-impli/)

[Economic Times](http://blogs.economictimes.indiatimes.com/et-editorials/should-food-and-fuel-decide-policy-rates/)

**Reasons why RBI and centre agreed that the CPI would be the sole parameter to set policy rates and anchor inflationary expectations are:**

* Conceptually, retail inflation—price rise driven by potential consumer demand and available supply—is a better indicator of inflation for guiding monetary policy decisions than WPI inflation.
* **Services:**
	+ **WPI excludes prices of services** such as education, healthcare, and rents. However, services now account for nearly 60 per cent of GDP and a vast majority of these services are not traded with other countries.
	+ As a result, inflation in these services is largely determined by the domestic demand-supply situation.
	+ Conversely, the new CPI measure assigns nearly 36% weightage on services and **includes price changes in housing, education, healthcare, transport and communication, personal care and entertainment**.
	+ CPI, therefore, is a better reflector of demand side pressures in the economy, than wholesale prices.
* WPI assigns nearly 15% and 10.7% weightage for the fuel group and metal and metal products group, respectively. **Any sharp movements in international prices of fuels and metals, therefore, lead to sharp changes in WPI.**CPI shows the consumer trends of the common man.
* Consumer price index (CPI) works better than wholesale price index (WPI) in **capturing market dynamics and arriving at a more realistic inflation forecast**.
* Conceptually, the CPI is a better indicator of demand side pressures than the WPI
* The central bank has to maintain the real interest rate and therefore has to target CPI because retail consumers are impacted by it

**Implications would recently revised base year and weights for the various goods and services in the consumer price index (CPI) will have on policy rates:**The Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation has revised the Base Year of the Consumer Price Index (CPI) from 2010 to 2012. In this revised series, many methodological changes have been incorporated, in order to make the indices more robust

The new index will include school uniforms, pyjamas, skirts, infant clothing, kurtas, belle shoes, shoes and chappals as well.

The methodology of calculating inflation will also see a change from the **present average method to geometric mean,** which will take care of a particular category driving the entire index, an internationally accepted practice.

**Implications are:**

* Core group gains weight, while weights reduced from food and fuel groups
* These changes reflect the **falling share of household expenditure on food and the rising share of the non-food items**. In addition, the number of items will also increase from 437 to 448 in the rural basket and from 450 to 460 in the urban basket.
* weightage for food is down from 47.58 percent to 45.86 percent. This means **future increases in food prices will impact the index marginally less than in the old CPI**. As incomes rise, people spend less on food. And that is good news.
* The weightage for housing and clothing are higher – the latter more than the former. While housing weightage is up marginally from 9.77 percent in the old index to 10.07 percent, the clothing and footwear weight is up from 4.73 percent 6.53 percent**. People are apparently buying better clothes and footwear as incomes rise.**
* the sharp downward reduction in the weightage for fuel – from 9.49 percent to 6.84 percent. **This will have the effect of reducing the deflationary impact of recent oil prices decreases – which means overall CPI will look higher than in the old index.**

**Negative implications:**

* Unlikely to be very different from that based on the old basket. This is because the positive impact (i.e. lower headline CPI inflation) due to the weight transfer from food (high inflation) to the core basket (medium inflation) is **likely to be offset by the weight transfer from fuel and light (low inflation) to the core basket.**
* If prices of pulses continue to rise rapidly, their weight in the index will also go up unless the price increase is offset by a decline in their consumption. The present CPI food basket, however, gives a higher weight to milk and milk products, vegetables, prepared meals, meat and fish, sugar and spices than to pulses. **The low weight for pulses explains why their price increase has only a minor impact on the CPI as a whole**.
* The revision of base year will have a marginal impact on the index. This is primarily due to reduced weight of food and beverages in the new index.

*Topic: Changes in critical geographical features (including waterbodies and ice-caps) and in flora and fauna and the effects of such changes*

[**1) The UN  ‘Global Environmental Outlook (GEO-6): Regional Assessments’ report says that the worst impacts of climate change are projected to occur in the Pacific and South and South-East Asia. Examine how will India be impacted. (200 Words)**](http://www.insightsonindia.com/2016/05/21/1-un-global-environmental-outlook-geo-6-regional-assessments-report-says-worst-impacts-climate-change-projected-occur-pacific-south-south-e/)

[The Hindu](http://www.thehindu.com/todays-paper/tp-national/40-million-indians-at-risk-from-rising-sea-levels-un-report/article8627540.ece)

**Fact:**

According to the report ,of the population at risk from sea-level rise by 2050, seven of the 10 most vulnerable countries worldwide are in the Asia Pacific region.

**Impact on India:**

* **Coasts:**
	+ Nearly 40 million Indians will be at risk from rising sea levels by 2050, with people in Mumbai and Kolkata having the maximum exposure to **coastal flooding in future** due to **rapid urbanisation and economic growth**, according to a UN environment report.
	+ On coastal areas **highly exposed to cyclones and typhoons**, the poor tend to be more exposed to natural disasters because they live on land open to hazards.
	+ Warmer climate, precipitation decline and droughts in most delta regions of India have resulted in**drying up of wetlands and severe degradation of ecosystems**
* **Poverty:**
	+ Evidence suggests that climate change and climate variability and sea-level rise will exacerbate multi-dimensional poverty in most developing countries.
	+ Climate change will slow down economic growth and make poverty reduction more difficult, further erode food security and “prolong existing and **create new poverty traps**
* **Rainfall:**
	+ India will experience decrease in seasonal mean rainfall and an increase in mean and extreme precipitation during monsoon.
	+ This will increase both floods and drought.
	+ **Freshwater resources will be affected due a combination of climate change and unsustainable practices.**
	+ A 2°C rise in the world’s average temperatures will make India’s summer monsoon highly unpredictable.
	+ At 4°C warming, an extremely wet monsoon that currently has a chance of occurring only once in 100 years is projected to occur every 10 years by the end of the century.
	+ An abrupt change in the monsoon could precipitate a major crisis, triggering more frequent droughts as well as greater flooding in large parts of India.
	+ India’s northwest coast to the south eastern coastal region could see higher than average rainfall.
	+ Dry years are expected to be drier and wet years wetter.
* **Agriculture:-**
	+ over US $7 billion loss in agriculture in India by 2030
	+ sorghum yield will reduce by 2-14 per cent by 2020
	+ there will be large reductions in wheat yield in the Indo-Gangetic plain; and substantial increase in heat stress for rice, affecting yield in the country.
	+ Alterations in the flows of the Indus, Ganges, and Brahmaputra rivers could significantly impact irrigation, affecting the amount of food that can be produced in their basins as well as the livelihoods of millions of people
* **Health:-**
	+ Temperature variations will lead to outbreak of diseases as well and disturb the already poor health indicators of the country. Frequency of hot days and multiple-day heat waves have increased in past century;**Increase in deaths due to heat stress in recent years**
	+ Possibly causing a rise in Diarrhoea cases and cholera outbreaks, as the cholera bacterium survives longer in saline water.
	+ Heat waves are likely to result in a very substantial rise in mortality and death, and injuries from extreme weather events are likely to increase
* **Groundwater:**
	+ **Sea-level rise leads to intrusion of saline water into the fresh groundwater**in coastal aquifers and thus adversely affects groundwater resources
	+ falling water tables  can be expected to reduce further on account of increasing demand for water from a growing population, more affluent life styles, as well as from the services sector and industry.
* **Urbanisation:**
	+ Unusual and unprecedented spells of hot weather are expected to occur far more frequently and cover much larger areas. With built-up urban areas **rapidly becoming “heat-islands”**
* **Sea level:**
	+ With India close to the equator, the sub-continent would see much higher rises in sea levels than higher latitudes.
	+ Sea-level rise and storm surges would lead to saltwater intrusion in the coastal areas, impacting agriculture, degrading groundwater quality, contaminating drinking water, a
	+ Kolkata and Mumbai, both densely populated cities, are particularly vulnerable to the impacts of sea-level rise, tropical cyclones, and riverine flooding.
* **Energy security:**
	+ The increasing variability and long-term decreases in river flows can pose a major challenge to hydropower plants and increase the risk of physical damage from landslides, flash floods, glacial lake outbursts, and other climate-related natural disasters.
	+ Decreases in the availability of water and increases in temperature will pose major risk factors to thermal power generation.
* **Water security:**
	+ An increase in variability of monsoon rainfall is expected to increase water shortages in some areas.
	+ Studies have found that the threat to water security is very high over central India, along the mountain ranges of the Western Ghats, and in India’s northeastern states.
* **Migration:-**
	+ Climate change impacts on agriculture and livelihoods can increase the number of climate refugees.

**What can be done?**

* **Improvements in hydro-meteorological systems for weather forecasting** and the installation of flood warning systems can help people move out of harm’s way before a weather-related disaster strikes.
* **Building codes** will need to be enforced to ensure that homes and infrastructure are not at risk.
* **Investments in R&D for the development of drought-resistant crops** can help reduce some of the negative impacts.
* **Major investments in water storage capacity** would be needed to benefit from increased river flows in spring and compensate for lower flows later on
* **Coastal embankments**will need to be built where necessary and Coastal Regulation Zone codes enforced strictly.
* **Improvements in irrigation systems, water harvesting techniques**, and more-efficient agricultural water management can offset some of these risks.
* **Regional cooperation on water issues** will be needed.
* **Crop diversification, more efficient water use,** and improved soil management practices, together with the development of drought-resistant crops can help reduce some of the negative impacts.

*Topic: Resource mobilization; Indian economy*

[**6) The government has decided to push for the creation of a new banking giant by merging the State Bank of India with its associate banks. Discuss the merits and demerits of this move. (200 Words)**](http://www.insightsonindia.com/2016/05/21/6-government-decided-push-creation-new-banking-giant-merging-state-bank-india-associate-banks-discuss-merits-demerits-move/)

[Livemint](http://www.livemint.com/Opinion/FxFuqERLuYvO2uKLcBahjN/The-risks-of-creating-giant-banks.html)

**Merits of bank consolidation:**

* The need for consolidation is specially felt now, due to the fact that although India is seventh largest economy in the world in terms of nominal GDP, there is no Indian bank in the list of 70 large banks in terms of asset size.
	+ As large banks reap certain advantages in terms of efficiency, risk diversification and capacity to finance large projects.
	+ The efficiency gains resulting from lower cost of services and higher quality of services is too attractive to ignore.
* However, in the context of India, it is felt that there is ample room for consolidation in the banking sector, especially among PSBs without creating issues of moral hazard or too big to fail concerns.
* There are 48 domestic banks (excluding RRBs and LABs) out of which there are 27 PSBs having a market share of around 70% in terms of asset size. A comparison of performance of larger PSBs with smaller PSBs does indicate that **larger PSBs perform better.**
	+ For example, among all PSBs, larger PSBs like SBI and Bank of Baroda are trading at higher Price to Book Value ratio in comparison to other smaller PSBs.
	+ SBI has been able to maintain relatively strong capital ratios and appears to be in a better position to withstand shocks to asset-quality. This indicates that under Indian conditions, there is lot of scope for banks to grow in size
* **Higher credit:**
	+ The other important aspect which needs to be considered is credit demand of a growing economy. As Indian companies increase their business and become global in nature, their demand for large scale credit will become higher.
	+ Banks also have to grow in size to meet the higher demand of credit. The banking system will be required to enhance its capacity to lend to larger companies and to larger projects.
	+ With increase in credit penetration and as credit to GDP ratio increases from present levels of 50 percent, PSBs with a market share of over 70 per cent need to contribute significantly in the process.
	+ **Without strong PSBs which are efficient, competitive and well-capitalised, meeting higher demands of bank credit would be quite challenging in future.**
* Recent proposals on Large Exposure norms which limit banks’ exposure to a group by 25% of their common equity will further limit their capacity to fund large credit demands. **It is therefore imperative that some consolidation among PSBs do happen to support the growth potential of the economy.**
* After the crisis, internationally there has been a **significant tightening of regulatory norms**.
	+ G-SIBs are required to maintain higher amount of common equity capital than other banks.
	+ G-SIBs will be required to meet the Total Loss-Absorbing Capacity (TLAC) requirement alongside the minimum regulatory requirements set out in the Basel III framework.
	+ Specifically, they will be required to meet a Minimum TLAC of at least 16% of the resolution group’s risk-weighted assets (TLAC RWA Minimum) from 1 January 2019 and at least 18% from 1 January 2022.
	+ These regulatory requirements have compelled many of these internationally active banks to reframe their business strategies into downsizing, quitting some businesses and some jurisdictions.
	+ This provides an opportunity for EME banks who have global ambitions, a ready business and market space.**If we have good large banks, such banks can tap these opportunities and can become global banks.**
	+ Thus we can see that right now the time is ripe for consolidation in the public sector bank space
* it’s the right thing to do **since there is a slight uptake in the economy**

**Demerits:**

* Four of the five biggest global banks in terms of assets are now Chinese. **Few see them as paragons of financial stability**. Their government has used them as fiscal tools to keep the growth engine running in times of trouble.
	+ The 2008 Chinese stimulus was a classic example of this. There is good reason to believe that the large Chinese banks are far weaker than what the official numbers say.
	+ Ireland was perhaps the most extreme example. It encouraged the growth of banks that overwhelmed the entire economy in 2008 after their bets went wrong.
	+ The US too has seen that large banks are not necessarily efficient banks.
* India right **now needs more banking competition rather than more banking consolidation.** In other words, it needs more banks rather than fewer banks
* The merged State Bank of India is likely to be five times larger than its nearest competitor in terms of balance sheet size.How the competition regulator will look at this forced merger is the question , given the fact that **one bank will now dominate the Indian banking landscape**
* India is right now seeing the creation of new banks that **could add to variety in the domestic financial system.**These new banks should make the Indian loan market more competitive. **The decision to merge the large public sector banks does exactly the opposite.**It will likely reduce competition—and without any major efficiency gains to the economy as a whole.
* But the enthusiasm to create massive banks through mergers needs to be tempered with scepticism. The global experience since 2008 is especially important in this context.
* current times is not the opportune time for consolidation and that the **need of the hour presently is to strengthen the banks by empowering them with operational flexibility**be it in the area of recruitment, or in differentiation on core capabilities
* The other area is which should be the criteria for identifying banks for merger is the **technology platform.**
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* **Employee unions and the employees who may fear identity loss.**The unions have already started opposing the proposed privatization of IDBI Bank
* Today the PSU banks still control over 70 per cent of the deposits and advances in the industry, but the entire pack mirrors each other in terms of performance.
	+ Take for example, the State Bank of India (SBI) has a balance sheet size of over 3.5 times larger than the sixth-largest HDFC Bank, but **the largest bank in the country lags behind in terms of market valuation**. HDFC Bank has a market capitalization of Rs 2.56 lakh crore as against SBI’s Rs 1.41 lakh crore.
* **merging two weak banks or a weak bank with a strong bank will create or make the merged entity unhealthy**
* This is **not the right time for**banks merger as the entire banking pack is facing challenges because:
	+ The operating environment is wobbling
	+ the corporate sector is over-leveraged
	+ banks have bare minimum capital
	+ the NPAs are skyrocketing  and
	+ profitability is at the lowest level.
	+ There is a complete non-interest of investors in the PSU banks
* **The rural strength, not any more:**
	+ The PSU banks have survived so long as they have a good presence in the rural and semi-urban market because of a strong brand and branch network.
	+ Now the entire rural banking model is itself changing with**new Small Finance banks.**
* **Merger Pangs:**
	+ The merger challenges are going to be huge as they do not have experience in dealing with people and cultural issues or merging products .
	+ In the past, even many private sector banks have struggled in such mergers.
	+ The HR being the top most concern as salary, seniority, postings etc will create a big challenge
* **Danger to financial stability**:
	+ Given the track record of PSUs, the new entities, say 5 or 6 large banks, could be a danger to  financial stability.
	+ **Any bank failure would create multiple problems for the system as well as for the economy.**

*Topic: Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth*

[**7) The automobile industry is one of the few success stories that India has and perhaps the only one in manufacturing. But in recent years it’s argued that the sector needs proper regulation. Examine why. (200 Words)**](http://www.insightsonindia.com/2016/05/21/7-automobile-industry-one-success-stories-india-perhaps-one-manufacturing-recent-years-argued-sector-needs-proper-regulation-examine/)

[Livemint](http://www.livemint.com/Opinion/diy9bV5Z4j1seo1qqsCgXO/Its-time-to-regulate-the-auto-industry.html)

**Why?**

* Global NCAP has not only managed to highlight
	+ **that cars made in India are unsafe**
	+ **but has also pointed out the casual approach of automakers towards improving the quality standards of vehicles.**
* The fact is India’s auto industry has been found wanting on every pertinent issue ranging from recalls, to emissions and safety standards. **Automakers react to changes in regulation instead of anticipating and implementing such moves**
* **Automakers find their ways around such problems as India does not have a clear inspection regime in place yet.**
	+ The mandatory crash testing norms will only come in place in 2017 for new models and in 2019 for existing models
	+ India will leapfrog to BS VI emission levels only in 2020 and the government has declined to have a mandatory vehicle recall policy in place.
	+ There is no way automakers could be held guilty in India for over-statement of fuel efficiency like they have been in Japan.
	+ Clearly, the government has done little on its part to improve the situation.
* Little has happened since the 2013 Tavera recall, where General Motors admitted to fudging emission data and specifications of its Tavera models and the then government was forced to call it a “corporate fraud”.
	+ The Nitin Gokarn Committee that was set up to investigate the recall found GM and its officials guilty.
	+ The then government at the Centre directed the Gujarat and Maharashtra governments to form a special investigative team to probe the matter further since the company’s manufacturing facilities were based in these states.
	+ **As of today, it is not clear if an SIT was even formed and whether GM will face the consequences.**
	+ The episode **also puts the role of some government-sponsored agencies** such as Automotive Research Association of India, Pune, and International Centre for Automotive Testing, Manesar, **in question.** They sign off Conformation of Production certificate to automakers.
* If the industry has to keep growing **it can’t be allowed to be lax on key parameters** like quality, standards and safety regulations that developed markets follow.
* The **automobile sector in general has not made much effort** to establish the impact of fuel quality on emissions.
	+ Some studies undertaken by companies have shown that there is hardly any consistent trend to show that the fuels are mainly responsible for the poor emissions.
* **Role of age factor on the effectiveness of catalytic converters too needs a comprehensive study** to establish a relation as it plays a great role in determining the pollution scenario on roads
* **Consumers:**
	+ Insufficiently informed consumers contribute to 80 per cent of the pollution generated by automobile companies on road.
	+ Yet the sector in itself or through its dealers has not taken any proactive effort to educate these consumers.

**What needs to be done?**

* Clearly, the Indian government needs to step up and look at the industry minutely. And a **sector regulator will only augur well**to realise the sector’s potential as the lynchpin of Indian manufacturing.
* Future strategies of the auto companies will have **to focus on increased environmental safety concerns, rising fuel prices and cost-effectiveness in the rising market competition. Innovation has to focus on increasing efficiency and reducing emissions.**
* **Customer experience** will be a key factor to retain the existing ones and reach out to the new ones. After-sales service is an important aspect which will help in winning the loyalty of the consumer. Overall in- vehicle experience needs to be upgraded for the consumer by deploying telematics, embedded software and infotainment in a seamless and user-friendly manner.

*Topic: Storage, transport and marketing of agricultural produce and issues and related constraints*

[**8) “The creation of the National Agricultural Market in India is a welcome move against the backdrop of the agricultural produce marketing committee reforms, 2013 and APMC Model Act 2003.” Discuss. (200 Words)**](http://www.insightsonindia.com/2016/05/21/8-creation-national-agricultural-market-india-welcome-move-backdrop-agricultural-produce-marketing-committee-reforms-2013-apmc-model-act-2003-discuss/)

[EPW](http://www.epw.in/journal/2016/19/insight/national-agricultural-market.html)

**Benefits:**

* **Transparency:**
	+ electronic auction platform to be installed in earmarked APMCs can bring transparency in the price discovery process, and unified market platform might lead to real time, broad-based price dissemination.
* **Single licencing system:**
	+ the common market platform can promote a single licensing system across the implementing states, connecting principal and sub-yard APMCs, and effectuate a single point levy of market fee.
	+ Online portal will enable the buyer to transfer funds to the farmer’s account and concerned APMC’s accounts after the delivery of produce from the farmer to the purchaser is ensured.
* **Reduce pricing anomaly:**
	+ creation of NAM could reduce pricing anomaly at the wholesale and primary rural markets through a network of electronic spot regulated markets
	+ Real-time price information, on the other, can be transmitted and stored into a central database of agricultural marketing research and information system, known “Agmarknet” portal.
* **Financial literacy:**
	+ The creation of electronic market could make farmers system and financially literate and exposed them to spot trading mechanics through in-built trading architecture called “CommTrack.”
	+ By optimising transaction costs and customising the contract, farmers could obtain a better price for their graded produce.
* **Forward/futures markets:-**
	+ Organised spot markets can support forward/futures markets for reference pricing and final settlement of the forward/futures contracts.
	+ Traders will be more informed as they may observe frictionless trading in both the markets.
	+ Option instrument can also gain ground if the contract design appeals to farmers, trading agencies, and centre-designate procurement agencies.
* Delivery might not be an issue since warehousing and collateral management business would receive a ripple effect of the project.
* Warehouse receipt-based sales can also help in mitigating farm marketing risk.
* **Less distortion:-**
	+ Commodity prices tend to be less distorted, and primary stakeholders will be able to compare commodity prices across the secondary and terminal markets that could reduce their information searching costs and improve the bargaining power.
* The provision of a single point levy of the market fee would enable traders reduce the cost of transaction.
* **NAM could bring the procurement activities in order**:-
	+ The state-designate procurement agencies, by virtue of a transparent price discovery, can efficiently conduct procurement operation.
	+ Private trading bodies might also enhance competition in the process if they are allowed. As a consequence, the agricultural market would be more efficient with respect to liquidity and participation.
* The project calls for an orchestration of service **providers to attain a unified transaction process** integrating product flow, information flow, and payment flow.
* Apparently, **the electronic market could replace the ring system of trading or “open outcry” at the market yard**.As ring system scores over a screen-based trading on several grounds, the two systems of trading should coexist to infuse efficiency in auctioning and ensure immediacy and liquidity in the trade.
* In general, NAM creation can be a welcome move for introducing a structural reform in India’s traditional agricultural marketing system. The benefits can percolate to various stakeholders in the market through technology adoption and market integration.

**Concerns:-**

* The motivation for a unified market platform can be traced to the Rashtriya e-Market Services (ReMS), but gains from REMS to farmers have remained muted.
* **Commission agents fear unification will affect them adversely** as farmers can enter details of commodities in the e-platform and sell to the highest bidder without any mediation from the agents. This is a very potent impediment against forward movement of reforms.
* Though **assaying facilities were present they remained in disuse**because of apprehensions of loss of income felt by farmers.
* Absence of involvement of all stakeholders, farmers, traders, agents, APMC’s and government the gains are slow and minimal.
* **APMC laws –**permit the first sale of crops after harvesting by farmers to take place only in regulated market yards/mandis.Restricts farmers universe of buyers to just traders licensed.Most of the farmers are till dependent on these committees.
* Farmers usually sell off to the local produce aggregator even before crops reach mandis.
* NAM **would not lead to reduction in various levies** imposed by states beside mandi taxes making interstate trade still a problem.
* **Fruits and vegetables are kept outside the purview of NAM.** So volatility in prices will continue thus depriving farmers from getting better prices.
* High taxes and levies imposed by Punjab ,Haryana and Andhra Pradesh on agricultural commodities trade is still a problem.
* Out of the 23 states and union territories, only eight have initiated major reforms in their respective agricultural market (NIAM 2015). However, with the efforts bringing about some positive change in the erstwhile opaque marketing system in a few states, private investment is yet to be commensurate with the pace of commercialisation and diversification in the sector.

*Topic: Infrastructure – energy*

[**9) With drought affecting large parts of the country, there are question marks on an energy policy that stresses thermal power plants. In this regard, what should be India’s energy policy? (200 Words)**](http://www.insightsonindia.com/2016/05/21/9-drought-affecting-large-parts-country-question-marks-energy-policy-stresses-thermal-power-plants-regard-indias-energy-policy/)

[EPW](http://www.epw.in/journal/2016/19/commentary/indias-water-and-power-crises.html)

**Background:-**

While droughts in the past generally hurt poor villagers, in recent times they have affected most sections of the population, including the urban rich. Reduced generation in power plants due to low water levels in the reservoirs is one reason for such widespread impact. In view of the fact that coal power plants need huge quantities of freshwater, the drought scenario in the country should lead to a thorough review of coal-based power policy for the country.

**What should be India’s energy policy?**

* India has to build a robust and ongoing national process to examine our energy and climate future, to replace India’s current ad hoc, disconnected, process of energy planning and policy.
	+ This requires a more cogent system of energy information gathering and analysis.
	+ It also requires exploring actions that bring synergies across development and climate outcomes (such as energy efficiency and public transport) and those that come with direct costs to the economy.
	+ Also need answers to longer-term questions salient to future pledges, such as: how much additional coal energy do we anticipate needing and, to what extent can we urbanise while limiting high carbon lock-in.
* Solar equipment makers like Jain Irrigation, Schneider ElectricIndia, ABB India, Siemens India can help
* Energy efficiency solutions providers like the Indian arm of ABB, Alstom, Siemens, and L&T may gain from industrial demand
* Renewable energy project companies like Suzlon and other private equity-backed green energy companies like ReNew Power may also help in energy security.
* **New national energy policy** which focuses on renewable energy and making India energy independent is needed.
* The focus of the new government is finding ways to **encourage bio-fuels** and have alternate energy sources to fossil fuels.A more conducive policy environment coupled with an effective regulatory regime is, without doubt, the basis for accelerated growth of domestic energy resources. Energy security needs integrated action by all stakeholders.
* More and more countries these days are turning to Natural gas as an alternative source of energy. The reasons for this are: gas is cheaper, cleaner and plentiful, and in an increasingly environmentally conscious world, developed countries see this as an attractive alternative to oil and mineral fuels.
* India also has a large potential for hydroelectric power, estimated at 600 Bkwh (billion kilowatt hour), **out of which only a fifth has either been developed or is under development.**Another 94,000MW (megawatt) of probable potential also exists if 63 sites which have been identified can be exploited, while 6,789 MW of potential for exploitation through mini/micro hydel schemes also exists.
* **Nuclear energy:-**
	+ India also has uranium resources, which are sufficient to meet the life-time requirement of the first stage of the country’s nuclear development programme of 10,000 MW.
	+ Over and above this, about 363,000 tonnes of thorium oxide deposits are known to exist, which when used through breeder reactors, may produce 900,000 Bkwh of electricity.
	+ Currently, only 2.6 per cent of India’s power consumption is met by nuclear energy. Although it is relatively expensive in terms of the capital costs, it is free from many of the problems discussed above, and should be given greater consideration as a viable alternative source of energy.
* Some of the strategies that can be adopted by the Asian countries as well as India to meet future challenges to their energy security **are building stockpiles, diversification of energy supply sources, increased capacity of fuel switching, demand restraint, and development of renewable energy sources.**
* Implementation of building codes along with using CFL,LED lights.
* India, to the greatest degree possible, must liberalize all wholesale and retail prices. As long as energy remains free or cheap, **consumers have no incentive to use it wisely, conserve, or buy energy-efficient appliances and vehicles.**
	+ To that point, India should mandate more stringent efficiency standards for appliances, vehicles, and all new commercial, residential, and industrial buildings, with encouragement through fiscal and other promotional polices.
	+ The country should also enact policies that encourage energy retrofits of existing residential and commercial buildings.
* Similarly, India should move to **increase the efficiency of all its power plants to conform to international norms.**
* **Investment in a more efficient electricity grid** would do wonders for both its energy security and the environment. Rather than building new generation facilities, most of them carbon-emitting, India could deliver more electricity to the end consumer. **Today, India’s transmission and distribution losses are astounding.**

India must accept the conflict that the country will be largely dependent on fossil fuels for the foreseeable future but that the reality of climate change is equally inescapable.To that end, in concert with the United States, India should take the lead in **establishing a world-class carbon capture and sequestration research and demonstration program**.This will help commercialize a technology that addresses a fundamental reality of the world’s energy consumption: fossil fuels will be a staple for decades to come.

**Fact:**

Asian Development Bank’s 2012 report “Climate Risk and Adaptation in the Electric Power Sector” discusses the water–energy nexus in Asian countries. It is well known that the electric power investment decisions have long lead times and long-lasting effects, as power plants and grids often last 40 years or more.

*Topic: Indian economy – employment*

[**6) Discuss why labour reforms is *sine qua non* for achieving employment growth in India. (200 Words)**](http://www.insightsonindia.com/2016/05/23/6-discuss-labour-reforms-sine-qua-non-achieving-employment-growth-india/)

[Livemint](http://www.livemint.com/Opinion/LA9FVEBBXciXNAy0eTlYfI/Labour-law-reforms-are-a-necessity.html)

**How labour reforms help in achieving employment growth?**.

* **Rigid labour laws lead to significant reduction in employment, productivity and growth**.
* More importantly, there is a strong relationship between **labour laws and urban poverty**. In other words, rigid labour laws are also associated with increased urban poverty.
	+ **Case study:**
		- Compare manufacturing growth in West Bengal and Andhra Pradesh during the sample period.
		- West Bengal, which was the largest producer of manufactured products during the beginning of their sample period, experienced a negative 1.5% growth in manufacturing, whereas Andhra Pradesh experienced a positive growth rate of 6%.
		- **Interestingly, as per the labour law index West Bengal further tightened labour laws, whereas Andhra Pradesh liberalized them.**
	+ Due to rigid labour laws, there is a negative impact on the industries that are **heavily dependent on labour.**
	+ Negative impact on growth and productivity is higher for firms in industries that face a lot of volatility. This is understandable given such firms require a lot of flexibility. Similar results have been obtained on studies done on other countries such as Mexico and Brazil.
	+ Given the rigidity of labour laws, it is not surprising that the share of manufacturing in India’s gross domestic product has stagnated between 14% and 18%.
		- A close look at the composition of exports further points out the distortionary impact of labour laws.
		- **It is ironical that a country with surplus labour and a large number of unemployed youth mostly exports capital-intensive goods** such as petroleum products, gems and jewellery, transport equipment, machinery and instruments, and pharmaceutical products.
	+ Labour reforms have a **key role to play in improving the ease of doing business in India** leading to better investments that ultimately give way for employment growth .
	+ **Bills:**
		- The Industrial Relations Code Bill 2016, Wage Code Bill 2016, the Small Factories (Regulation of Employment and Conditions of Services) Bill, the Shops and Establishments (Amendment) Bill, and Employees Provident Fund and Miscellaneous Provisions (Amendment) Bill.
		- Once passed, the industrial relations code will facilitate easier hiring and retrenchment in factories
		- Greater women’s participation in the workforce will be facilitated by the Small Factories Bill, which will allow women to work night shifts.

**Negatives:**

* Labour reforms are likely to have a **detrimental impact on employment** and hence many oppose even simple procedural reforms in this area.
* Industries are already not following laws and they know how to bypass them. By making labour laws more flexible it will only hamper the workers. Indian workers are largely badly paid, and during the EPF tax debate, the government said that 30 million organized sector workers are getting less than Rs.15,000 a month. So, by changing the laws it will put these poor workers in further trouble.

*Topic: Indian economy – planning, growth*

[**7) There is fear of global oil prices rising again in coming months. How will it affect Indian economy? What should government do to avert adverse consequences of increasing oil prices? Examine. (200 Words)**](http://www.insightsonindia.com/2016/05/23/7-fear-global-oil-prices-rising-coming-months-will-affect-indian-economy-government-avert-adverse-consequences-increasing-oil-prices-examine/)

[The Indian Express](http://indianexpress.com/article/opinion/editorials/crude-risk-oil-imports-narendra-modi-governement-india-inflation-petrol-diesel-prices-2814224/)

[Bloomberg](http://www.bloomberg.com/news/articles/2016-05-18/for-fuel-importing-india-50-oil-seen-as-economic-sweet-spot)

**Impact on Indian Economy:**

**Negative impact:**

* The good phase with inflation and current account deficits may be over, as global oil prices again touch $ 50 per barrel.**Once inflation increases current account deficit also seems to widen.**
* Not allowing current account deficit and fiscal returning to reappear will be a challenge for this government in the next three years.
* It will be difficult for the government to maintain its increased excise duty on petroleum products at the existing rates.If it is cut, the government’s revenues would be hit.And if it is not, petroleum product prices would shoot, stoking the fire of inflation.

**Positive impact:**

* **More cash for fuel exporters could boost global growth**, lure commodity-dependent sovereign wealth funds back to emerging markets and increase demand for Indian-made goods, including petroleum products.
* **Rising crude prices may also force the government to roll back increases in excise taxes**, forcing it to find alternative sources of revenue to hit its budget-deficit target
* The**consumers** would not be very much affected as during the low prices phase the government’s move of having high excise duty for petroleum products did not fully pass on the gains from lower international oil prices to them.

**What should government do ?**

* It has to have a plan to complete all its **subsidies reforms** in sectors that are impacted by oil prices
* Government’s decided to increase excise duty on petroleum products when their prices were low, now it has to share the **benefit of these earnings with consumers i**f there was a spectacular hike in the prices.
* The prospect of even higher fuel prices **increases the urgency to pass a national sales tax**and establish a rate-setting panel to meet a nascent inflation target.
* Government initiatives need to be implemented:
	+ In a major drive to enhance the petroleum and hydrocarbon sector, Government of India has introduced initiatives like the **Hydrocarbon Exploration Licensing Policy (HELP),**Marketing and Pricing freedom for new gas production
	+ **Hydrocarbon Vision 2030 for North East India**, with the objective of leveraging the north-eastern region’s hydrocarbon potential, enhance access to clean fuels, improve availability of petroleum products.
	+ The Government of India plans to **incentivise gas production from deep-water**, ultra deep-water and high pressure-high temperature areas which are presently not exploited on account of higher cost and risk, and also **to augment the investment in nuclear power generation in the next 15 to 20 years**.
	+ The Ministry of Petroleum and Natural Gas has announced a new **‘Marginal Fields Policy’,**which aims to bring into production 69 marginal oil and gas fields with 89 million tonnes or Rs 75,000 crore (US$ 11 billion) worth of reserves, by offering various incentives to oil and gas explorers such as exemption from payment of oil cess and customs duty on machinery and equipment.
* This includes measures such as **decreasing the fossil fuel share in the national energy portfolio, increasing energy efficiency, and developing structural and technological alternatives to make production processes less fossil fuel intensive.**

*Topic: Issues relating to intellectual property rights.*

[**7) Critically analyse the new IPR policy from socio-economic development and public-interest perspective. (200 Words)**](http://www.insightsonindia.com/2016/05/28/7-critically-analyse-new-ipr-policy-socio-economic-development-public-interest-perspective/)

[EPW](http://www.epw.in/journal/2016/21/commentary/why-new-ipr-policy-inadequate.html)

**Negatives:**

* Policy might tilt the country’s approach to IP towards a maximalist position, **undermining its social and economic development** needs,notably the goal of providing access to affordable medicines.
	+ The pharmaceutical TNCs used the opportunity to influence the policy in their favour to undermine public interest safeguards in the Patents Act.
* certain actions of the DIPP and the Indian Patents Office led to speculation about the extent of US influence in shaping India’s new IP regime.
	+ First, the patent office proposed amendments to the Guidelines for Examination of Computer Related Inventions (CRIs), which sought to effectively bypass the explicit exclusion of patenting of software. The intervention of public interest groups forced the DIPP to cancel the amendment.
	+ Second, the rejection of the compulsory licence application by Lee Pharma on AstraZeneca’s diabetes medicine Saxagliptin, without assigning adequate reasons, casts doubts on the role and the autonomy of the patent office as an independent quasi-judicial body.
	+ Third, the office rejected the pre-grant opposition on Sofosbuvir, an anti-hepatitis drug, without taking note of the rejection of the same patent in other countries like Egypt.
	+ Fourth, the office amended rules to introduce fast-track patent examination for foreign applications.
* The main thrust of the policy is its unquestioning faith in the potential of IP as a development tool.**The policy does not, however, provide an analysis of the role of IP in addressing the development needs of India**. The policy neither explains the reasons for the measures suggested nor provides any evidence to back the policy measures.
* There is no information as to whether the IPR think tank, which drafted the initial version of the policy, carried out a study to identify India’s experiences after the implementation of the TRIPS regime.
* The policy **also ignores the fact that at present, a large number of patents are owned by foreigners**and, therefore, any easing of rules for patent protection would benefit them much more than domestic applicants.
* In many developing countries, including India, IP protection acts as a tool to manage competition rather than incentivise research and development (R&D), innovation and creativity
* The overall social benefits of innovation are reduced while an imbalance emerges between those able to cope with the resulting insecurities and related costs, such as multinational enterprises with their own patent departments, and those who cannot, such as small and medium sized enterprises or individual inventors.

**Positives :**

* The policy, in many places, stresses the need for a “balanced approach” towards IP as well as the need to protect public interest.
* Objective 3 of the policy states it is necessary “to have strong and effective IPR laws, which balance the interests of rights owners with (the) larger public interest.

*Topic: Indian economy; Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.*

[**5) The US economy is driven by consumption and the Chinese economy is driven by production, the Indian economy is driven by trade and services. To which category does Indian start-ups belong to? Discuss their strengths and weaknesses. (200 Words)**](http://www.insightsonindia.com/2016/05/24/5-us-economy-driven-consumption-chinese-economy-driven-production-indian-economy-driven-trade-services-category-indian-start-ups-belong-discu/)

[Livemint](http://www.livemint.com/Opinion/00T2z3eDwDMmqZezrGOFcP/Startups-and-the-Indian-drive-for-trade-and-services.html)

As traders and service providers ,India’s strength lies in its aspirational workforce that is hungry to learn new skills ,assimilate new cultures and go beyond national boundaries.A closer observation at the industry would reveal that the Indian Startup scene is mostly about software driven businesses rather driven hardware driven.Ola,Flipkart and uber are all internet or software based firms

Entrepreneurs and investors in tech startups are no exceptions to this rule.Their natural inclination is to import technologies and export products ,import funds and export companies and to become service providers for big foreign firms.

**Strengths:**

* In the last five years the economy has witnessed significant rise in the number of start-up companies, which is still growing. In fact over $6.4 billion has been invested into Indian startups in the first three quarters of last year.
* This shows **immense pool of talent available in India** with stupendous entrepreneurial zeal and an innovation attitude.
* Indian Startups have the ethos of not being afraid to fail.They are smart technologists.They create well built products and India is also a very good test market too.
* Also, the diverse cultural and sound economic base makes India a great platform for the start-up segment.
* With regards to liquor industry, India shows immense potential for startups (new companies), as it is one of the fastest growing market, the third largest in the world after Russia and China.
* The main strengths or the key advantage startups have are mainly**, big ideas with a strong vision, low paid up capital, quick growth, competitive pricing, small team that allows for it to be less bureaucratic.**
* With a buoyant vision startups in India has a very prosperous future ahead, with overall growth of the economy this segment is bound to grow.
* **With government’s initiatives incredible support is available for the startups strengthening them further:**
	+ **Start-up India:**The government recently launched a ‘Start-up India’ programme giving incentives and relaxing compliance requirements for startup companies. This has demonstrated that the government is realising the need for supporting start-ups and is giving them time and attention.
	+ **Start-up fund:**As part of the ‘Start-up India’ programme, the government has also announced a Rs10000-crore fund for innovation-driven enterprises.
	+ **Private investment:**Start-ups with viable business ideas are doing well with the help of private funding and their leaders’ entrepreneurial spirit, and not with huge incentives from the government.
	+ **Ease of business:**The government’s recent efforts to increase the ease of doing business have helped start-ups as well as other companies.

**Weakness:**

* **Man power:**
	+ Scarcity of proper talent is a big problem faced by the entire sector today, which is a big hurdle in the growth of path of any startup.
* **Gestation period for break-in period:**
	+ Startups work on funding and because of long gestation period it delays the next phase of investments which adds up more worries.
* **Lack of proper infrastructure:**
	+ Unavailability or lack of proper infra-facility pose a great threat to the growth of this sector.
* **Diverse market and stiff competition:**
	+ Complexity of the market coupled with stiff competition is a big factor for dissuading the entrepreneurs to close their enterprises.
	+ Additionally, particularly in the liquor industry, the absence of any uniform, harmonized excise policies or labelling regulations hinders the growth of start-ups in this segment as it increases the complexity in the trading environment
* One major issue faced by start-ups in the country is that of **funding and guidance in the proper direction.**The government can firstly help them in getting streamlined with the introduction of new reforms and laws in their favour.
* It indeed does lag, there is **lack of real innovation.**All the current “startups” are in someway or the other just copy of a company already in some other part of the world. Ola example here, it’s almost equivalent to Uber (Uber was founded on 2009, and Ola in 2010), same goes for Flipkart / Amazon
* The cautiousness about the markets and adapting the products accordingly would be the two issues that the Indian startups face .Another weakness is related to the awareness of the opportunity.
* **Recent trends:**
	+ first it was Flipkart investors de-valuing their investments.
	+ Now Zomato, taking a hit with one of the I-Banks – devaluing its valuation by as much as 50%.
	+ Other smaller players have either shut shop or pivoted to new models.
	+ the TinyOwl saga or how Pepper Tap fired most of its staff and pivoted to a pure logistics play.
* Marketing ≠ discounting:
	+ **Most start-ups are guilty of falling for this trap.** Instead of marketing the USPs, convenience factor, problem they are solving – most of the communication is directed and focused towards how cheap the offering is. **There are multiple issues with this approach**:
		- Customer is being trained to expect a discount every time he books a service/buys a product from you.
		- Internally your employees increasingly get convinced that only way to sell is to discount our offering(s). **This also leads of lack of trust in your own employees in your product.**
		- Rising discounts leads to higher burn which forces companies to cut corners on the fulfilment side. This becomes a vicious cycle.
	+ **Be transparent and over communicate:**
		- Most start-ups lag in this aspect.
		- Most employees are left to draw their own conclusions through the unofficial channels which does more damage to any start-up than anything else
	+ **Weak ecosystem:**
		- India lags far behind several nations in terms of ecosystem and culture that nurtures startups.
		- Indian laws and policies are not suited to meet  development needs of start-ups, which vary greatly from that of traditional businesses.
		- Also, government, regulatory and compliance authorities have limited understanding of newer business models, resulting in redundant compliance requirements, delays in clearances, etc.
	+ **Limited influence:**
		- Start-ups are often less influential in representing their interests before relevant authorities, primarily as those are small companies with limited approach in the government and no political connections, linkages or lineages.
	+ **High failure:**Start-ups have a very high failure rate. Many such companies come up with new business models that have no proven track record.

**What is needed?**

* **Easy entry:**
	+ Government must make efforts towards creating a single window for all taxes, compliances and registrations, so that the startup companies can put more time and effort in attending to business concerns rather than on administrative matters.
* **Easy exit:**
	+ Government must create policies that help winding down companies in organised manner with safe exit to the promoters, so that people are not discouraged from taking up entrepreneurial ventures.
* **Fund of Funds:**
	+ The details of the recently-announced Rs-10000-crore fund are keenly awaited. The detailed policy must ensure seamless implementation of this funding process.
* **Tax sops to supporting ecosystem:**
	+ Since the startups do not benefit from the initial tax sops due to losses in their early years, the government must help by providing tax breaks to the supporting ecosystem, such as Incubators and Accelerators, Angel Investors, and organisations providing skilled manpower.
* **Smart infrastructure:**

Good infrastructure is as important for the startups as for other organisations or people. The government must focus on developing smart cities, providing internet, data connectivity, and enabling incubator facilities, apart from the traditional facilities such as logistics, roads and ports connectivity, etc.

*Topic: Achievements of Indians in science & technology; indigenization of technology and developing new technology*

[**6) Recently India successfully tested a reusable launch vehicle. Examine its significance for India’s space commerce. (200 Words)**](http://www.insightsonindia.com/2016/05/24/6-recently-india-successfully-tested-reusable-launch-vehicle-examine-significance-indias-space-commerce/)

[The Indian Express](http://indianexpress.com/article/technology/tech-news-technology/reusable-satellite-launch-test-its-all-about-lowering-the-cost-2815455/)

[Livemint](http://www.livemint.com/Politics/6FqSLGv9y5ccXoAjcB5GpK/Isro-carries-out-successful-test-demo-of-its-own-reusable-la.html)

[The Hindu](http://www.thehindu.com/todays-paper/tp-national/india-tests-native-reusable-vehicle/article8638095.ece)

**Significance:**

* The ISRO successfully tested the country’s first winged body aerospace vehicle and steps towards**developing a reusable launch vehicle** capable of sending spacecraft into orbit and returning to the earth’s surface
* The technology when developed completely would launch spacecraft including satellites into space and re enter the earth’s atmosphere withstanding extreme pressure and heat conditions and land in an intended **spot helping to cut costs on launch vehicles substantially.**
* Three objectives were met:
	+ To test the characterization of the aero thermo dynamics of hypersonic flights
	+ To test the autonomous mission management of hypersonic vehicles
	+ To test necessary re entry technology for the vehicles
* **With this the ISRO joined the race to develop a space vehicle that can fly numerous times into space** like aeroplanes by successfully conducting the maiden test flight of a reusable Launch Vehicle technology.The organization will be testing its first ever indigenous space shuttle which will add it to the list of the few nations that have achieved such a feat.
* In this flight critical technologies such as autonomous navigation,guidance and control,reusable thermal protection system and re-entry mission management have been successfully validated.
* The RLV-TD that ISRO flew is the first step in an Indian effort to develop a Two stage To orbit (TSTO)fully reusable vehicle.The hypersonic flight experiment (HEX)will be followed by a landing experiment (LEX),a return flight experiment (REX) and a scramjet propulsion experiment(SPEX)in the coming days
* Though **manned space flight is the ultimate goal of RLVs** the major advantage of development of an RLV is the reduction in the cost of space launches and space travel itself
* And other ways being considered are cheaper steel and reusable boosters on the GSLV.

*Topic: Achievements of Indians in science & technology; indigenization of technology and developing new technology*

[**7) Recently in India, Quercetin, a naturally occurring compound in several fruits and vegetables was in news. Write a note on the application and significance of the compound for health sector. (200 Words)**](http://www.insightsonindia.com/2016/05/24/7-recently-india-quercetin-naturally-occurring-compound-several-fruits-vegetables-news-write-note-application-significance-compound-health-sector/)

[The Hindu](http://www.thehindu.com/todays-paper/tp-national/iisc-study-explains-the-green-way-of-fighting-cancer/article8638326.ece)

**Application and significance:**

* **Anti cancer:**
	+ Quercetin known to cause anti cancer and anti inflammatory activity reportedly induces apoptosis ,a process by which **cells commit suicide in a controlled manner**
	+ The compound also prevents multiplication of cancerous cells by blocking the process of cell division.It can even kill the highly aggressive leukaemia cell line K562,which is resistant to most anti cancerous drugs
	+ Quercetin treatment significantly reduced the size of the cancerous tumour in the experimental animals
	+ Quercetin was found to have no adverse effects on the non cancerous cells even while killing the cancerous ones ,including in the experimental animals
* **Supports Normal Respiratory Health:**
	+ When respiratory system is irritated redness and swelling can result from the release of histamines and Quercetin has been reported to have an antihistamine effect
* **Supports cardiovascular health:**
	+ Studies have shown that the consumption of flavanoids specifically Quercetin offer a two fold benefit in **promoting overall cardiovascular health**
	+ First it encourages **blood flow.**
	+ Secondly researchers have observed that Quercetin’s antioxidant action protects against LDL cholesterol oxidation
* **Promotes balanced blood pressure**
	+ In addition to supporting cardiovascular health Quercetin naturally promotes balanced blood pressure.
* **Offers protection against stress:**
	+ When body is stressed,it produces cortisol.
	+ When stress levels are high and ongoing,cortisol can daage uscle tissue leading to protein breakdown in the body.
	+ Quercetin can fight these effects during times of extended stress as it suppresses the enzyme necessary for cortisol release.
* **Offers nutritional support for overall health**
* **Quercetin has antioxidant and anti inflammatory effects which might help reduce prostate inflammation.**

*Topic: Effects of liberalization on the economy*

[**6) 2016 marks the 25th anniversary of economic liberalization in India. Critically analyse if 1991 economic reforms have enabled India to become global economic power.  (200 Words)**](http://www.insightsonindia.com/2016/05/25/6-2016-marks-25th-anniversary-economic-liberalization-india-critically-analyse-1991-economic-reforms-enabled-india-become-global-economic-power/)

[The Hindu](http://www.thehindu.com/todays-paper/tp-opinion/the-ease-of-living-in-india/article8642358.ece)

**Successes :-**

* There can be no doubt that the reforms **have eased** **India’s balance-of-payments constraint. India’s Forex reserves** today exceed $350 billion, compared to less than $6 billion in March 1991. .
* The current account deficit has been financed comfortably, **most measures of external indebtedness show an improvement**
* Outsourcing led to emergence of **multinational companies** in India during this period which contributed significantly to the economic growth of the country .
* **Indias GDP** grew well which lead to increase in per capita income leading to decrease in poverty .
* Since reforms, there have been three rounds of License Grants for private banks. Private Banks such as ICICI, HDFC, Yes Bank and also foreign banks, **raised standards of Indian Banking Industry.**
* **Similarly Insurance Industry** now offers variety of products such as Unit Linked Insurance plans, Travel Insurance etc. But, in India life Insurance business is still decisively in hands of Life Insurance Corporation of India.
* Another major development is one of Stock Markets.
* After reforms**, private telecom sector reached pinnacle of success.** And Indian telecom companies went global.
* **Foreign investment**brought the latest technologies to India.

**Failure:**

* Consequently, Growth of past decade was limited to upscale areas of the countries as almost whole**service industry**, operates from these areas. Majority of India got spillover or trickle down growth from here. This **accelerated migration to urban areas**.
	+ This in turned created array of **social problems associated with urbanization.**It fundamentally changed pattern of Indian Society
* **Education:**
	+ Deregulation has resulted in Mushrooming of private engineering and Medical Colleges. **But in reality, this had far reaching devastating effect on society.**
	+ Furthermore, social policies should be improved to better reach the poor and—given the importance of human capital—the education system also needs to be made more efficient.
* Reality is that after deregulation and liberalization, government along with other sectors, pulled its hand from social sectors too.
* Governments all across the world has lost their capacity to regulate and ward of against malicious, false, sensitive information and content. Rise of Islamic State demonstrates that, **IT revolution has helped development of global Terrorist links more than anything.**
	+ Moreover, explicit content is freely available on web, to which unmatured children have unrestricted access.
* Slow growth of the agricultural sector, where half of Indians earn most of their income..Heavy**dependence on agriculture sector has not decreased** even now even though services sector grew well .
* **High inflation**
* **Corruption**:
	+ Black money,money laundering have become a daily feature especially with the rise of tax havens post reforms.
* While the rate of growth of the economy accelerated after 1991, it had done so twice earlier, first in the 1950s and then in the late 1970s. So the reforms have only maintained an existing history with respect to economic growth.
* **What of poverty**?
	+ Absolute poverty has declined since 1991, but this has been the trend since the early 1970s. Essentially, the decline in poverty has kept pace with growth
	+ However, **even after a quarter century of economic reforms, approximately a quarter of the country remains poor according to a poverty line that is low by international standards.**
* Liberalisation cannot address all aspects of the man-made environment and now **climate change**threatens to change everything forever
* **Highly restrictive and complex labour laws:**
	+ In the formal sector, where these labour laws apply, employment has been falling and firms are becoming more capital intensive despite abundant low-cost labour.
	+ Labour market reform is essential to achieve a broader-based development and provide sufficient and higher productivity jobs for the growing labour force.
	+ In product markets, inefficient government procedures, particularly in some of the states, acts as a barrier to entrepreneurship and need to be improved.
* **Tax:**
	+ The indirect tax system needs to be simplified to create a true national market, while for direct taxes, the taxable base should be broadened and rates lowered.
	+ Public expenditure should be re-oriented towards infrastructure investment by reducing subsidies.

*Topic: Issues relating to intellectual property rights.*

[**7) “India’s first IPR policy trots out the worn western fairy tale that more IP means innovation, and encourages the pointless privatisation of indigenous knowledge.” Comment. (200 Words)**](http://www.insightsonindia.com/2016/05/25/7-indias-first-ipr-policy-trots-worn-western-fairy-tale-ip-means-innovation-encourages-pointless-privatisation-indigenous-knowledge-comment/)

[The Hindu](http://www.thehindu.com/todays-paper/tp-opinion/patently-a-missed-opportunity/article8642476.ece)

**Success:**

* The National IPR Policy aim **was to create awareness** about the economic, social and cultural benefits of IPRs among all sections of society.
* The policy has been designed to lay stress on the need to facilitate entrepreneurship and enhance socio-economic and cultural development while also prioritising the **need for better access to healthcare, food security and environmental protection.**
* The new policy will try to **safeguard the interests of rights owners with the wider public interest,** while combating infringements of intellectual property rights.
* By 2017, the window for trademark registration will be brought down to one month. This will help**in clearing over 237,000 pending applications** in India’s four patent offices.
* It also **seeks to promote R&D through tax benefits** available under various laws and simplification of procedures for availing of direct and indirect tax benefits.
* Unlike earlier where copyright was accorded to only books and publications**, the recast regime will cover films, music and industrial drawings.** A host of laws will also be streamlined — on semi-conductors, designs, geographical indications, trademarks and patents.
* Policy will **provide both domestic and foreign investors a stable IPR framework in the country**. This will promote a holistic and conducive ecosystem to catalyse the full potential of intellectual property for India’s growth and socio-cultural development while protecting public interest.
* The Policy**recognizes that India has a well-established TRIPS-compliant legislative, administrative and judicial framework to safeguard IPRs,** which meets its international obligations while utilizing the flexibilities provided in the international regime to address its developmental concerns.  It reiterates India’s commitment to the Doha Development Agenda and the TRIPS agreement.
	+ These flexibilities include the sovereign right of countries to use provisions such as Section 3(d) and CLs for ensuring the availability of essential and life-saving drugs at affordable prices.
* An all-encompassing IP Policy**will promote a holistic and conducive ecosystem to catalyse the full potential of intellectual property for India’s economic growth and socio-cultural development** .
* Such a Policy will**nurture the IP culture** and address all facets of the IP system including legal, administrative and enforcement infrastructure, human resources, institutional support system and international dimensions
* It lends**strong words against theft and misappropriation of IP rights.**

**Limitations :**

* **Innovation**
	+ thrives in an environment where access to knowledge is real and substantial. The Indian government, as the largest funder of research in the country, has not mandated that this research be made accessible to scholars through open copyright licensing, but has chosen to abdicate this responsibility.
	+ While innovation is a desirable economic goal for any society, the academic consensus is that **IP is not a good measure of innovation**. Innovation is largely driven by forces other than IP law, and the **policy shows no signs of understanding this tenuous connection**.
	+ **conflating IP with innovation can be dangerous.**IP signifies activity the activity of producing IP. For this activity to be useful, it must generate value in a society, by being commercially or otherwise licensed and brought to market.
	+ CSIR has been lauded for the 4500 patents it holds. While It is not clear if CSIR has earned a single rupee from patenting, it has spent 74 crore over a period of 10 years on patenting.Even though on paper it is considered remarkable but in practice many see it as a wastage of public money.
* Indian patent law extols a philosophy of minimalism less is more. With the new IPR policy, **this minimalism is now inexplicably shrouded in a cloak of maximalism**, the lesson apparently having been revised to mean more is more.
	+ The IPR policy is driven by the agenda of IP maximalism, where IP owners’ rights will be maximised at the cost of public interest. This (policy) will influence courts and judges.
	+ The most significant achievement of the 2005 amendment to our patent law was a high bar for innovation which is neglected in the new policy.

*Topic: Effects of liberalization on the economy; Inclusive growth and issues arising from it.*

[**7) Through payments banks, RBI wants to improve financial inclusion. But, recently licence holders have expressed concerns and some of them have given up their plan to set up a payments bank. Examine why. (200 Words)**](http://www.insightsonindia.com/2016/05/26/7-payments-banks-rbi-wants-improve-financial-inclusion-recently-licence-holders-expressed-concerns-given-plan-set-payments-bank-examine/)

[Business Standard](http://www.business-standard.com/article/finance/payments-bank-dreams-go-awry-before-take-off-116052500658_1.html)

**Background:**

* Recently Tech Mahindra announced that it was dropping its plan to start a payments bank.It became the third licence holder, out of 11, to do so.

**Reasons:**

* **the limited scope of business activity**, is proving to be the biggest deterrent.
* **Competition:**
	+ Those who have backed out have cited competitive pressure on the margins as the main reason. Experts believe that it will take a minimum of three to five years to break even.
* **Strict rules :-**
	+ RBI’s restrictions and rules are so tough that it is difficult for a standalone payments bank to make money
	+ These banks are required to invest 75 per cent in government securities, which will crimp their earnings.
* **Technological Advancements :-**
	+ The evolution in technology over the past ten months, after the licences were issued, is another reason that has forced the players to rethink their plans
	+ And with the new payments solutions (Unified Payments Interface) provided by the National Payments Corporation of India, it is going to be extremely competitive.It is set to completely revolutionise digital money transfer by making sending money as simple as a text message
	+ The margins and fee structures are going to be low, it gets difficult for these banks to make money
	+ At the same time, competition in the digital banking space has intensified with banks entering the fray.
		- With their captive customer base and deep pockets, they have an edge over other payments banks and digital wallet players.
	+ **Structure of payment banks :**
		- Payments banks are not allowed to lend and they cannot issue credit cards. This will limit their earning potential as their main source of income will be fee income and not the net interest income as in the case of  universal banks.
		- Given that  in order to woo customers, payments banks may initially have to offer a higher rate  compared to the 4 per cent offered by most commercial banks,  their net interest margins will come under pressure
		- As income channels are limited, payments banks will be under pressure to generate volume
	+ **Challenges by Government initiatives:**
		- Government initiatives aimed at the unbanked population have considerably reduced the scope of doing business for payments banks
		- Pradhan Mantri Jan Dhan Yojana that was also aimed at bringing the un-banked population under the established financial system. Since its inception, banks have opened 21.87 million accounts.
	+ **Other challenges:**
		- challenges in terms of their making any commercial sense of the transactions of procuring customers, having a balance, using that only for the purpose of parking in government securities, passing on incentives on payments from vendors back to the customer.

**Positives:**

* Analysts believe that it is mainly the telecom companies that will be able to survive the heat. **The Nachiket Mor Committee** on these niche banks had stated that the telecom companies that have wide reach and also have a connect with the un-banked population will be able to establish themselves quickly.
	+ Out of the remaining eight players, three are telecom companies: Aditya Birla Nuvo, Bharti Airtel and Vodafone.
	+ they can give extra payment options to their customers and therefore stay relevant to them.
* Still, the payments banks remain hopeful, **given that in urban areas** consumers have more than one bank and therefore there is still scope to reach out to these players.

*Topic: Conservation.*

[**5) The Union environment ministry has recently proposed to overhaul the regulations which identify and protect wetlands under the Environment Protection Act (EPA).  Comment on the contents of this notification. (200 Words)**](http://www.insightsonindia.com/2016/05/27/5-union-environment-ministry-recently-proposed-overhaul-regulations-identify-protect-wetlands-environment-protection-act-epa-comment-contents-not/)

[Business Standard](http://www.business-standard.com/article/economy-policy/centre-prepares-to-dilute-wetland-protection-rules-116052601606_1.html)

**Background :-**

* The wetland rules 2016 follow the “wise use” philosophy of the Ramsar Convention and accord emphasis on maintaining ecological character and integrity of wetlands in their conservation and use
* The new notification has suggested the time-bound process set under the regulations of 2010 be done away with, along with the existing central authority, leaving it almost entirely in the hands of state governments.

**Contents of this notification :**

* Accordingly, **the following activities have been prohibited in wetlands:**
	+ Reclamation of wetlands and conversion for non-wetland uses;
	+ any diversion or impediment to natural water inflows and outflows of the wetland;
	+ any activity having or likely to have an adverse impact on ecological character of the wetland:
	+ However, any of the above can be bypassed in exceptional cases with prior approval of the Central Government.
* **Wetland authority:**
	+ The government has now proposed that a state-level authority headed by the chief minister, including the chief secretary and other state officials, with four experts on board, who can also be from the government, identify the wetlands.
	+ The recommendations of this CM-headed authority are to be then sent to the state government for approval or rejection.
* **Specific Wetland Authority**:-
	+ For the purpose of managing wetlands with multiple issues, the state / union territories can also establish a dedicated authority for a wetland.
* Wetlands within the protected areas of the National Parks and Wildlife Sanctuaries shall be regulated by the provisions of Wildlife (Protection) Act, 1972 .
* The Centre will only be informed of the decision by the state.
* Only the 26 Ramsar wetland sites will get automatic protection.

**Analysis:**

* This shows a **shift from the 2010 regulations**which created a central authority of government officers and experts to oversee the protection of wetlands.
	+ It gave a fixed time for states to identify and demarcate wetlands and the Centre again a fixed time period to notify and protect these, as is now done for environmental and forest clearances.
	+ The process of identifying and demarcating the wetlands included recommendations and advice of scientific experts at state levels.
* The **new regulations do away with the elaborate list of activities that are prohibited or restricted**.
	+ It prohibits reclamation of wetlands, conversion to non-wetlands, diversion or impediment of inflows and outflows from the wetland and ‘any activity having or likely to have adverse impact on ecological character of the wetland’
	+ However, the rules then give the Centre powers to allow these activities as well.
* The above discussion makes it clear that the draft rules have put the onus of wetland protection upon the states. This move is in correct direction **because a single template does not work for all wetlands in varied geography of India**.
* The **rules have detailed the mandate of the state / UT wetland authority rather lucidly**and given adequate thoughts to existing tenurial rights, preparation of integrated wetland plans, protection and conservation etc.
* There is **also major emphasis on identifying the wetlands** through multi-mapping process.

**Negatives:**

* The new rules have **omitted some of the wetlands that were protected in the 2010 rules**. For example, the 2010 rules explicitly mentioned the wetlands located in the UNESCO World Heritage Sites including Western Ghats, high altitude wetlands etc. New rules don’t even mention them.
* Secondly, under the 2010 rules some activities were mentioned such as solid waste dumping, storing of hazardous waste, setting up of new industries, discharge of untreated water etc. **The new rules don’t define these.**
* Thirdly, in the prohibition of reclamation of wetlands, the draft rules mention that only those activities which are likely to have adverse impact on ecological character of the wetland would be prohibited. T**his is ambiguous and is subject to wrong interpretations.**
* It has diluted regulations and failed to involve stakeholder communities.
* There is **no mention of community involvement** and the **Central government has delinked itself of the responsibility of conservation** and management of wetlands and transferred it to the States without even ensuring a compliance mechanism.
* Experts feel that the new rules had diluted the prohibited and restricted activities, **paving the way for large-scale conversion of wetlands which come in the way of development projects**.
* The **confusion of the applicability of both the wetland rules and CRZ norms in some wetlands** in the State and the absence of an appellate body and State wetland policy have also led to concern.
* The **need for the environmental impact assessment** before permitting such activities is to be done away with.
* The **earlier regulations allowed appeals against the decisions of the central wetlands authority**with the NGT. This, too, is to be done away with, though aggrieved entities could continue to file cases against violations of these rules.

*Topic: Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth*

[**6) Should government drop the local sourcing clause in its entirety for all proposals of foreign investment in single-brand retail? Justify. (200 Words)**](http://www.insightsonindia.com/2016/05/27/6-government-drop-local-sourcing-clause-entirety-proposals-foreign-investment-single-brand-retail-justify/)

[Business Standard](http://www.business-standard.com/article/opinion/less-discretion-116052601543_1.html)

**Background:**

* Any foreign investment beyond 51% in single-brand retail requires 30% of the value of goods to be sourced from **India**, preferably from micro, small and medium enterprises, village and cottage industries, artisans and craftsmen.
* It was subsequently decided that the clause would be waived when the foreign company promises to bring in “cutting-edge” and “state-of-the-art” technology to India.
* Recently FIPB has agreed to the proposal of Apple Inc. to set up its own retail stores in the country but has added the proviso that 30 per cent of the value of its sales should be sourced from the Indian market.
* This will be a tough challenge for the maker of popular gadgets like the iPhone, iPad and MacBook, since none of these are manufactured domestically.

**Yes,local sourcing clause is required:**

* officials defended the policy saying **some amount of discretion is inevitable** in interpreting ‘cutting edge’  **technology**.
* The clause that 30% of the value of goods be sourced from India, preferably from micro, small and medium enterprises (MSMEs), village and cottage industries and artisans so that it **would provide employment opportunities and enhance their quality**as well.
	+ Developing local sourcing is critical, but can take decades to develop quality suppliers, especially for firms that, like Apple, have very high standards for quality.

**No,the clause needs to be removed:-**

* This instance once again demonstrates that the condition for the waiver is subjective, which **leads to bureaucratic or even political discretion**
* **cutting edge’ needs to be defined clearly**, otherwise the clause would be open to discretion and charges of corruption
* If the government is serious about improving the ease of doing business in India, **such discretionary powers need to be removed**. Or else, efforts to **make the country an attractive destination for foreign companies are likely to fail**
* The **government may close down the FIPB in the future**, and leave it to the sector regulators to ensure that all foreign investment guidelines are met by the investors.This is a welcome move
* It is a business decision that the company has to make, **and the government should not force this decision by putting up hurdles** for the company’s plans to retail its products in India. Its presence, and that of its competitors, **will only add to the consumer’s choice**, which should be encouraged
* With Apple’s proposal being turned down, the future of similar such applications by Chinese handset makers **Xiaomi**and LeEco is also uncertain now.
* This creates a lack of policy clarity for many companies, with their applications having got stuck at DIPP for months.
* Provision that is **viewed as restrictive** by premium and luxury brands seeking to enter the Indian market.

*Topic: Biotechnology and issues relating to intellectual property rights.*

[**7) Should GM seed prices be controlled by the government? Critically comment. (200 Words)**](http://www.insightsonindia.com/2016/05/27/7-gm-seed-prices-controlled-government-critically-comment/)

[Livemint](http://www.livemint.com/Opinion/lAB4aJlNNVPYmIsdmfEk7N/A-new-policy-needed-for-GM-seeds.html)

**Background :-**

This issue propped up in the light of the announcement of the notification that sought to regulate

(a) the price of Bt cotton seeds

(b) the “trait value”, which is the fee or royalty per packet of seeds sold which goes to the technology owner and

(c) the terms of licensing of the technology to anyone interested in producing the seed

**Yes,GM seed prices need to be controlled:-**

* Price control will **reduce the price to** the consumer
* **Seed producers may welcome** the proposed change today because it reduces the fee they pay.
* Prices varied across seed producers and **it was desirable to have a uniform price.**
* Presently technology companies are forcing seed companies into one-sided contracts without any legal backing. Seed companies are not even allowed to test a new technology from another company.To avoid this regulation is needed.
* In the past, companies like Monsanto earned royalties even on expired patents (for Bollgard I Bt cotton technology) and the latest order will **protect farmers’ interest.** **Farmers will have a wider choice** and existing monopolistic practices of technology providers will go for good
* order was fair and transparent **and will encourage more domestic seed companies to enter the market.**
* It is **fair for the government to dictate what royalty the holder of a proprietary product or technology should charge for licensing** it to other companies for commercial use

**No,the prices should not be controlled :-**

* **Controlling prices will also affect the incentive to develop and supply good seeds in future**, especially in the private sector which is now an important source of supply.
* **Economic Survey for 2015-16** specifically criticized the decision to control the price of Bt cotton seeds, arguing that the objective of achieving adequate availability of good quality seeds is best left to the market.
* Ministry’s actions lowered the price of Bt cotton seeds by about 4%, but **lowered the trait value payment by 74%.** In effect, all the reduction in the seed price was at the expense of a reduction in the trait value.
* The current Bt cotton variety Bollgard II is expected to run out of vitality in a few years, when it would need to be replaced by a new variety, Bollgard III. **The new price control regime could discourage the technology holder from introducing the new variety**
* The development of new seeds is expensive, and especially so with GM technology, where prolonged safety testing is involved. Profitability may not be the key consideration for public sector seed producers but **India cannot rely exclusively on the public sector to provide seeds.**
	+ Experience thus far shows that the private sector has done a good job in seed production and it could do more.
* Monsanto alone has a research and development budget which is twice that of the total budget of the Indian Council of Agricultural Research. **This justifies encouraging private sector companies**, including multinationals, to get actively involved and even partner with public sector institutions such as the agricultural universities.
* The new order a “huge blow to the innovators in agri-biotech industry”.

**Suggestions:**

* This problem needs to be handled by **strengthening the procedures** that the Genetic Engineering Approval Committee follows for GM seeds.
	+ Once new varieties have received approval there should be assurance that the technology holder will get a reasonable return for their investment.
* need to create an environment that **encourages research in developing new seeds and innovation.**The National Intellectual Property Rights (IPR) Policy, outlines what is needed to encourage innovation.
* **promote competition** by allowing development of such seeds by more private and public sector bodies.
* But the government’s present policies governing GM crops are far from conducive to the emergence of such competition. **Well-advised changes in these policies are, therefore, urgently called for**.
	+ That will let more gene-tweaked seeds to come up not only for cotton but also for various other crops for which such seeds are in various stages of development.