

GS SCORE

**CURRENT
ANALYST**

ISSUE I: FEBRUARY, 2017

Cover Story

Robot Tax and the Future of Employment

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*Will phasing out
of FIPB increase
FDI flow?*

Freebies Politics in India:

*The freebies politics work
on pleasing voters by
way of gifts and money
however, voters may be
poor, but their votes
are not up for sale.*

Companies Need to Look Beyond CSR:

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FIPB, no more

90%+
FDI through
automatic route

New roadmap for
approvals soon

Govt to further
liberalise FDI
policy



A BRIEF HISTORY

FIPB constituted
under PMO post
liberalisation

Reconstituted in 1996
brought under DIPP

In 2003, transferred
to the Department of
Economic Affairs

- National Sex Offender Registry
- Leachate of Groundwater in Urban Areas
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COVER STORY

Robot Tax and the FUTURE OF EMPLOYMENT

Context

The robots haven't just landed in the workplace—they're expanding skills, moving up the corporate ladder, showing awesome productivity and retention rates, and increasingly shoving aside their human counterparts.

Thus experts came up with the concept of Robot Tax. The revenue garnered from these robot taxes could then be used to support and retrain those unemployed workers, ultimately moving them into new forms of employment.

Thus hereby analyzing the reason, why robots are expanding and feasibility of the tax in present scenario.

to industrial robots, medical operating robots, patent assist robots, dog therapy robots, collectively programmed swarm robots, UAV drones such as General Atomics MQ-1 Predator, and even microscopic nano robots. By mimicking a lifelike appearance a robot may convey a sense of intelligence or thought of its own.

Why was it in the news recently?

Recently, Bill Gates has proposed that robots who take human jobs should pay taxes and using the money to retrain the humans may be one way to deal with the upheaval ahead. Also robots are unlikely to complain about tax levels, they don't use services financed by tax revenue such as education or the health services and they are most unlikely to salt away income and assets in a tax haven.

Introduction

A robot is a machine, especially one programmable by a computer and capable of carrying out a complex series of actions automatically. The branch of technology that deals with the design, construction, operation, and application of robots, is robotics.

Robots can be autonomous or semi-autonomous and range from humanoids such as Honda's Advanced Step in Innovative Mobility (ASIMO) and TOSY's TOSY Ping Pong Playing Robot (TOPIO)

Machine vs Computer vs Robots

- ▶ Machine is any device that uses energy to perform some activity.
- ▶ A computer is a machine that manipulates data according to a set of instructions.
- ▶ A robot is a virtual or mechanical artificial agent. In practice, it is usually an electro-mechanical machine which is guided by

computer or electronic programming, and is thus able to do tasks on its own. Another common characteristic is that by its appearance or movements, a robot often conveys a sense that it has intent or agency of its own. Robots can be considered machines but not all machines are robots.

The Fourth Industrial Revolution or the Second Machine Age

- ▶ World is witnessing the beginning of fourth industrial revolution that is fundamentally changing the way we live, work and relate to one another.
- ▶ Previous industrial revolutions liberated humankind from animal power, made mass production possible and brought digital capabilities to billions of people.
- ▶ This Fourth Industrial Revolution/ second Machine Age is, however, fundamentally different. It is characterized by a range of new technologies that are fusing the physical, digital and biological worlds, impacting all disciplines, economies and industries, and even challenging ideas about what it means to be human.
- ▶ The Second Machine Age involves the automation of a lot of cognitive tasks that make humans and software-driven machines substitutes, rather than complements to Human effort. It contrasts with the “First Machine Age”, or First Industrial Revolution, which helped make labor and machines complementary.
- ▶ Initially it was assumed that computers could make human tasks easier but they could not do away with the human altogether. But after 50 years of the computer age that barrier has finally cracked. Robots nowadays are increasingly doing complex things as the mental and physical dexterity gap has been narrowed down.

For Example - Google’s driverless car is around the corner, Amazon’s robots pack delivery boxes in warehouses so empty of people that there is no need for light or a controlled temperature. Amazon’s Kiva Robots lift shelves that weigh around 1,360kg, 24x7, without a toilet break, lunch hour, health insurance or pension plan. They don’t get stuck in traffic or snow and they don’t have attitude.

- ▶ The resulting shifts mean that we live in a time of great promise and great peril. The world has the potential to connect billions more people to digital networks, dramatically improve the efficiency of organizations and even manage assets in ways that can help regenerate the natural environment, potentially undoing the damage of previous industrial revolutions.
- ▶ However, organizations might be unable to adapt, governments could fail to employ and regulate new technologies to capture their benefits; shifting power will create important new security concerns; inequality may grow; and societies fragment.

The Second Machine Age and the Global Employment Structure

- ▶ Emerging technologies like industrial robots, artificial intelligence, and machine learning are advancing at a rapid pace, but there has been little attention to their impact on employment and public policy. While emerging technologies can improve the speed, quality, and cost of available goods and services, they may also displace large numbers of workers.
- ▶ The impacts of automation technologies are already being felt throughout the economy. The worldwide number of industrial robots has increased rapidly over the past few years. The falling prices of robots, which can operate all day without interruption, make them cost-competitive with human workers.
- ▶ In the service sector, computer algorithms can execute stock trades in a fraction of a second, much faster than any human. As these technologies become cheaper, more capable, and more widespread, they will find even more applications in an economy.
- ▶ The recent trend towards increased automation stems in part from the Great Recession, which forced many businesses to operate with fewer workers. After growth resumed, many businesses continued automating their operations rather than hiring additional workers. This echoes a trend among technology companies that receive massive valuations with relatively few workers. For example, in 2014 Google was valued at \$370 billion with only 55,000 employees, a tenth the size of AT&T’s workforce in the 1960s.

FOXBOTS: Foxconn plans to replace human workers with robots

The world's largest manufacturer of electronic products, Taiwan's Foxconn, is considering replacing its workforce with one million "Foxbots".

Foxconn, the Taiwanese manufacturing giant behind Apple's iPhone and numerous other major electronics devices, aims to automate away a vast majority of its human employees. The company has a **three-phase plan** in place to automate its Chinese factories using software and in-house robotics units, known as Foxbots.

- ▶ The first phase of Foxconn's automation plans involve replacing the work that is either dangerous or involves repetitious labor humans are unwilling to do.
- ▶ The second phase involves improving efficiency by streamlining production lines to reduce the number of excess robots in use.
- ▶ The third and final phase involves automating entire factories, "with only a minimal number of workers assigned for production, logistics, testing, and inspection processes,".

Whether Robot Age is a dystopia or a Utopia?

Dystopia:

- ▶ Globally, workers are worried that machines are taking their place in factories and offices. According to one of the reports, "The Future of Employment", it is predicted that 47% of current jobs would be replaced by robots. China, a later starter and the world's leading manufacturer has become the biggest buyer of robots.
- ▶ This process has been underway for a while and underscores a secular stagnation and worsening inequality in the advanced economies. The typical worker in the US has not seen a rise in their living standards since 1979 and since then **income inequality has steadily worsened.**

Utopia:

- ▶ Experts disagree on the size of the impact that automation technologies will have on the workforce. They point out that technology may create new job categories that will employ displaced workers. They argue that the computers will have little effect on employment in the future.
- ▶ In 1983, the economist predicted that the role of humans as the most important factor of production is bound to diminish in the same way that the role of horses in agricultural production was first diminished and then eliminated by the introduction of tractors.
- ▶ If one day there is a robot that can do everything humans can do, it is only a problem if humans do not own it.
- ▶ Whether the future is a dystopia or a utopia depends on ownership, not technology.

Delivering benefits to displaced workers

- ▶ In an economy that employs dramatically fewer workers, we need to think about how to deliver benefits to displaced workers.
- ▶ Any policy measures that address the future of employment must account for the uncertainty of outcomes on employment. If automation technologies like robots and artificial intelligence make jobs less secure in the future, there needs to be a way to deliver benefits outside of employment.
- ▶ Flexible security, is one idea for providing healthcare, education, and housing assistance whether or not someone is formally employed. Expanding the Earned Income Tax Credit, providing a guaranteed basic income, and encouraging corporate profit-sharing are some ideas that need to be considered in the case of persistent unemployment.

Taxation on Robots to offset the social costs of automation

Recently, it has been proposed that robots who take human jobs should pay taxes.

Case Study

- ▶ A person makes a decent living operating a large harvester. His salary generates income tax and

social security payments that help finance government programmes for less fortunate members of his community. Alas, Robot is about to replace him, a robot that can operate the harvester longer, more safely, in any weather, and without lunch breaks, holidays, or sick pay.

- ▶ This shows how the robots may replace human being thus it has been proposed by Bill Gates that to ease the inequality and offset the social costs implied by automation's displacement effects, either robot should pay income tax, or the employer should pay a hefty tax for replacing employee with a robot. And this "robot tax" should be used to finance something like a Universal Basic Income (UBI).

Universal Basic Income:

It is a form of social security in which all citizens or residents of a country regularly receive an unconditional sum of money from the government in addition to any income received from elsewhere.

- ▶ The whole point of automation is that, unlike employee, Robot will never negotiate a labor contract with employer. Indeed, it will receive no income. Thus the question arises what will be the criteria of placing tax?
- ▶ The only way to simulate an income tax on behalf of Robot is to use employee's last income as a reference salary and extract revenue income tax and social security charges equivalent to what paid.

It will have many advantages such as -

- ▶ We will be able to spend the money to finance jobs for which humans are particularly suited, such as caring for children or the elderly.
- ▶ Robots are also unlikely to complain about tax levels.
- ▶ They don't use services financed by tax revenue such as education or the health services.
- ▶ They are most unlikely to salt away income and assets in a tax haven.
- ▶ Taxing robots would, in reality, be a tax on the capital employed by businesses in using them and might help to redress the long-term shift away from taxing capital.

- ▶ Taxing robots might also help to counteract tax avoidance, because the tax would be calculated by taxing a notional salary paid to the robot, and the company would be allowed to deduct this notional payment for the purpose of corporation tax.
- ▶ Furthermore, taxing robots will not discourage innovation. People are naturally anxious about the effects of such technology, but taxation is a better way of allaying these fears than the alternative of banning aspects of it.

There are three problems with this approach

- ▶ First, whereas employee's income would have changed over time had he not been fired, the reference salary cannot change, except arbitrarily and in a manner setting the tax authorities against business. The tax office and employee would end up clashing over impossible estimates of the extent to which employee's salary would have risen or fallen, had he still been employed.
- ▶ Second, the advent of robot-operated machines that have never been operated by humans means there will be no prior human income to act as a reference salary for calculating the taxes these robots must pay.
- ▶ Finally, it is hard philosophically to justify forcing employer to pay "**income tax**" for Robot but not for the harvester that it operates. After all, they are both machines, and the harvester has displaced far more human labor than ROBOT has. The only defensible justification for treating them differently is that ROBOT has greater autonomy.

Another way of Taxation

- ▶ Assuming that robots cannot be made to pay income tax without creating new potential for conflict between the tax authorities and business (accompanied by tax arbitrage and corruption), there is an alternate of taxing ROBOT at the point of sale to employer. The state would collect a lump-sum tax from employer the moment he replaces employee with Robot.
- ▶ Bill Gates supported this second-best alternative to making robots "pay" income tax. Slowing down automation and creating tax disincentives to counter technology's displacement effect is, overall, a sensible policy.

- ▶ But a lump-sum tax on robots would lead robot producers to bundle artificial intelligence within other machinery. ROBOT will increasingly be incorporated within the harvester, making it impossible to tax the robotic element separately from the dumb parts that do the harvesting.
- ▶ Ever since the emergence of **industrial capitalism**, we have been terrible at differentiating between property and capital, and thus between wealth, rent and profits. This is why a wealth tax is so difficult to design.

UBD: An alternative to Robot Tax

- ▶ There is an alternative to a robot tax that is easy to implement and simple to justify: a **Universal Basic Dividend (UBD)**, financed from the returns on all capital. Imagine that a fixed portion of new equity issues goes into a public trust that, in turn, generates an income stream from which a UBD is paid. Effectively, society becomes a shareholder in every corporation, and the dividends are distributed evenly to all citizens.
- ▶ To the extent that automation improves productivity and corporate profitability, the whole of society would begin to share the benefits. No new tax, no complications in the tax code, and no effect on the existing funding of the welfare state.
- ▶ Indeed, as higher profits and their automatic redistribution via the UBD boost incomes, more funds would become available for the **welfare**

state. Coupled with stronger labor rights and a **decent** living wage, the ideal of shared prosperity would receive a new lease on life.

Criticisms

- ▶ **Taxing technologies is a slippery slope** - There are a number of technologies that already make it easier for a human to work, or to work more effectively—for instance, Microsoft Word. Kiosks replace human work by allowing customers to serve themselves, but don't involve artificial intelligence or robots. Vaccines prevent disease, so we might argue they destroy jobs in medicine. There is no line between which technologies destroy jobs and which do not. Even if the government could create a precise definition, tax authorities would be unlikely to effectively administer one.
- ▶ **True innovation shouldn't be stifled** - Automation technology has the potential to replace work that accounts for \$14.6 trillion in wages globally. But along with its potential to dislocate workers, new technology can bring with it improvements in goods and services. We already benefit from technology that has given the world more efficient ways to book travel or more precision in delicate surgeries. All currently, under development promises to do the same. Automated cars, for instance, are meant to be safer than human drivers. A tax on robots—risks squeezing innovation out of the system. In short, a sufficiently high tax on robots would prevent them from being produced.

Conclusion

- ▶ The role of humans as the most important factor of production is bound to diminish in the same way that the role of horses in agricultural production was first diminished and then eliminated by the introduction of tractors. Robots are replacing human workers and they don't even have to pay income tax. Bill Gates suggests that this should change.
- ▶ Gates proposal to tax robots on their income or taxing their owners is to address inequality and technological anxiety and it has opened up discussion about what is likely to be one of the most crushing problems of the early 21st century: the future of work and the role of automation.

SPECIAL ISSUE

Freebies Politics in India

Context

The biggest worry for the Election Commission (EC) these days as it conducts and oversees Assembly elections, is the excessive use of money by political parties and their candidates to buy votes.

Studies conducted by the Centre for the Study of Developing Societies (CSDS) indicate that while this practice is prevalent in most states to varying degrees, it is much more rampant in the southern states.

The freebies politics work on pleasing voters by way of gifts and money. Voters may be poor, but their votes are not up for sale. Thus hereby analysing the impact of freebies politics and steps needed to curb that.

The competitive populism in India has given space for freebies during the election. In competitive populism governments/parties, in the name of welfare, establish client-patron relationship with poor, especially those deprived of private goods.

Freebies often in the form of private goods are doled out by the parties to patronize this poor yet loyal section of the society and its apparent success in garnering votes and creating a vote-bank in election. Its mandatory practice by parties has predominantly overtaken the centre stage in all election campaigns.

Freebies often take the form of cash, bribes, free rice, saris, and loan waivers. In fact, the kind of

“freebie culture” that has developed few states, such as Tamilnadu, in the last one and a half decade is quite unique — “gifts” have now evolved from “welfare goods” to “consumer goods” like TV sets, mobile phones, sewing machines, etc.

The phenomena have become apparent in different parts of the country. Studies conducted by the Centre for the **Study of Developing Societies** indicate that while this practice is prevalent in most states to varying degrees, it is much more rampant in the southern states of Andhra Pradesh, Karnataka, Tamil Nadu, but not in Kerala.

During the Assembly elections in Tamil Nadu in 2011, more than 70 per cent voters talked of either receiving gifts or money themselves or they had heard of others receiving gifts or money from political parties during the election campaign. Similarly, in 2015 Delhi Elections, the AAP government gained utmost electoral mileage by promising free electricity, water and wi-fi to the people. This is again being repeated in Punjab where party has made such provisions in their election manifesto.

Impact of freebies politics

The above facts are well known and widely publicized. However, what is not so publicized is the consequence of shelling out such generous dole programs.

Loss of exchequer: Freebies in election cause loss of exchequer of the state. For example- In Tamil Nadu, if one has to implement all the dole programs as promised by DMK/AIADMK parties in last election, then it will cost the government exchequer an additional Rs. 10,000 crore every year.

Increasing debt burden: Due to distribution of freebies, Tamilnadu’s public debt has exceeded Rs.

2, 00,000 crore in 2015-16. West Bengal has doubled its outstanding state liability in excess of Rs. 3,00,000 crore over the last five years.

Quality of expenditure: One can argue that Maharashtra, an industrially advanced state, has the highest debt at around Rs. 3, 50,000 crore. But then most of this debt is because of industrialization, and due to a spurt in manufacturing and services. On the other hand, for West Bengal and to some extent in Tamil Nadu, a large component of public debt has originated from unproductive freebies. Further, major expenditure is done on private goods which affect the revenue for public goods which have potential to pace the economic growth.

Unsustainable Fiscal deficit: Unfortunately, an increase in subsidies on non-merit goods such as freebies makes the fiscal deficit of any government unsustainable. While freebies may keep voters in oblivion and even blissfully happy, the fact of the matter is that between 2011 and 2014, West Bengal's per capita income was less than the all-India average by 12.2%. This figure is higher than it was during the Left rule between 2004 and 2011, when West Bengal's per capita income lagged behind the all-India average by 10.4%.

Shakes the root of free and fair elections to a large degree: Supreme Court while hearing **Subramaniam Balaji V. State of Tamil Nadu**, though ruled out such freebies as practice of corruption under section 123 of Representation of People Act, 1951, acknowledged that in reality distribution of free gifts by political parties does influence the electorate and "shakes the root of free and fair elections to a large degree". The apex court agreed with the election commission's submission that freebies promised by the parties disturb the level-playing field among players contesting the polls and vitiates the election process.

Reform

While hearing on the case **Subramaniam Balaji V. State of Tamil Nadu**, the apex court directed to Election Commission to frame guidelines with consultation of political parties on its general conduct and content of election manifesto including Model code of Conduct (MCC) for the guidance of political parties and candidates.

In the fresh guidelines to political parties on election manifesto, EC in the interest of free and fair elections directed political parties to adhere to few guidelines. The guidelines are-

- ▶ The election manifesto shall not contain anything repugnant to the ideals and principles enshrined in the **Constitution** and further that it shall be consistent with the later and spirit of other provisions of **Model Code of Conduct**.
- ▶ Political parties should avoid making those promises which are likely to vitiate the purity of the election process or exert undue influence on the voters in exercising their franchise.
- ▶ In the interest of transparency, level playing field and credibility of promises, it is expected that manifestos also reflect the rationale for the promises and broadly indicate the ways and means to meet the financial requirements for it. **Trust of voters** should be sought only on those promises which are possible to be fulfilled.

A list of reforms and recommendations, that may be implemented for improvement regarding regulation of freebies are:

- ▶ It should be made obligatory for each political party to publish and submit their **Manifesto** to the Election Commission before the deadline of the first phase of the nomination, failure of which should lead to debarring the party from contesting the particular election.
- ▶ To prevent laxity on part of the political parties and candidates on coming to power, **strict judicial action** should be taken against the political parties for the non-fulfilment of promises made by them during the announcement of election manifestos.
- ▶ Manifesto should be **legally binding** document on the parties to implement the promises made before the pre-elections so as to avoid the unpractical claims.
- ▶ The political parties should very carefully take the **statistical data** to be used in the Manifestos from reliable sources, preferably from government documents and database. Moreover, the manifesto should lay down the fiscal roadmaps to achieve such targets and the impact of such commodity on the financial reserves.
- ▶ Due to the strict interpretation of the penal statutes of Section 123 of RP Act only candidates

and its agents come under its preview. It should encompass its horizons to include political parties as well.

If candidates and political parties believe that they can win elections only by pleasing voters by way of gifts and money, they are seriously mistaken. Voters may be poor, but their votes are not up for sale.

It is true that when candidates and political parties distribute gifts during the election campaign and a day or two before the voting, voters are willing to

accept these gifts, but that does not mean that the voters make any kind of real commitment to vote for the candidate from whom they've received gifts.

Voters may be happy to receive freebies, but the long-term economic and political consequences are immense. Instead, political, judicial and administrative reforms are needed to curb corruption.

To put it briefly, in the words of Ronald Reagan that -We should measure welfare success by how many people leave welfare, not by how many are added.

Monetary Policy Committee Review

Context

Recently RBI undertook the monetary policy review. On the basis of an assessment of the current and evolving macroeconomic situation at its meeting, the Monetary Policy Committee (MPC) decided to keep the policy repo rate under the liquidity adjustment facility (LAF) **unchanged at 6.25 per cent**. Thus MPC has taken a neutral stance i.e. neither increase or decrease the REPO rates. The decision has been taken in line with medium-term target of 4 per cent CPI inflation within a band of +/- 2 per cent.

Thus, hereby analysing the reason for taking neutral stance and its implications.

The Monetary Policy Committee (MPC) is a committee of the Central Bank in India (Reserve Bank of India), headed by its Governor, which is entrusted with the task of fixing the **benchmark policy interest rate (repo rate) to contain inflation within the specified target level**.

The MPC replaces the current system where the RBI governor, with the aid and advice of his internal team and a technical advisory committee, has complete control over monetary policy decisions. A Committee-based approach will add lot of value and transparency to monetary policy decisions.

Under the Monetary Policy Framework Agreement, the RBI will be responsible for containing inflation

targets at 4% (with a standard deviation of 2%) in the medium term. Under Section 45ZA(1) of the RBI Act, 1934, the Central Government determines the inflation target in terms of the **Consumer Price Index, once in every five years** in consultation with the RBI. This target would be notified in the Official Gazette. Though the central bank already had a monetary framework and was implementing the monetary policy, the newly designed statutory framework would mean that the RBI would have to give an explanation in the form of a report to the Central Government, if it failed to reach the specified inflation targets.

Recently the Monetary Policy Committee (MPC) decided to keep the policy repo rate under the liquidity adjustment facility (LAF) unchanged at 6.25 per cent.

Inflation Targeting India

Inflation targeting is a **monetary policy strategy** used by Central Banks for maintaining price level at a certain level or within a range. It indicates the primacy of **price stability as the key objective** of monetary policy. The argument for price stability stems from the fact that rising prices create uncertainties in decision making, adversely affecting savings and encouraging speculative investments.

Inflation targeting brings in more predictability and transparency in deciding monetary policy. If the central banks could ensure price stability, households and companies can plan ahead, negotiating wages on the basis of expecting low and stable inflation.

Various advanced economies including United States, Canada and Australia have been using inflation

targeting as a strategy in their monetary policy framework. The case for inflation targeting has been made in India as the country has been experiencing a high level of inflation till recently.

The Reserve Bank of India and Government of India signed a Monetary Policy Framework Agreement on 20th February 2015. As per terms of the agreement, the objective of monetary policy framework would be primarily to maintain price stability, while keeping in mind the objective of growth. The monetary policy framework would be operated by the RBI. RBI would aim to contain consumer price inflation within 6 percent by January 2016 and within 4 percent with a band of (+/-) 2 percent for all subsequent years.

Management of monetary policy and the express objective of inflation targeting has been enshrined as the responsibility of RBI by amending the preamble of the RBI Act, 1934 through the Finance Act 2016 (Chapter XII). The amendment give way to operation of a Monetary Policy Committee (MPC), this would be the institutional arrangement at the disposal of RBI for targeting inflation.

Reasons for Undertaking Neutral Stance

Future Risks which could increase inflation

- ▶ The hardening profile of international crude prices - Crude oil prices firmed up with the OPEC's agreement to curtail production.
- ▶ **Volatility in the exchange rate** on account of global financial market developments including increase in federal rate- this could lead to outflow of FII, increase in US dollar exchange rates, increase in price of imports which could impart upside pressures to domestic inflation.
- ▶ Effects of the house rent allowances under the **7th Central Pay Commission (CPC)** award which have not been factored in the baseline inflation path.

Impact of Demonetisation

- ▶ First, consumer demand held back by demonetisation is expected to bounce back.

- ▶ Second, economic activity in cash-intensive sectors such as retail trade, hotels and restaurants, and transportation, as well as in the unorganised sector, is expected to be rapidly restored.
- ▶ Third, demonetisation-induced ease in bank funding conditions has led to a sharp improvement in transmission of past policy rate reductions in lending rates, which should spur a pick-up in both consumption and investment demand.

So, in nutshell adverse international outlook and better expected demand due to remonetisation may increase inflation in future, taking this into account MPC has desisted from reducing policy rates (Repo rates). At the same time MPC expect banks to reduce lending rates in response to earlier cut in policy rates.

For better performance of monetary policy it is important for banks to allow transmission mechanism to work. **Transmission mechanism is the reduction in lending rate because of reduction in policy rates by RBI.** A flawless transmission mechanism insures effective working of monetary policy. But if transmission mechanism doesn't work the monetary policy will not show desired result despite reduction in policy rates.

Why banks do not ensure easy flawless working of transmission mechanism?

Since 2011 banking sector has seen increase in NPA's. This increase reduces the profitability of banks as by definition NPA do not yield interests income for banks. So, banks have started cross subsidization i.e. cover for loss due to NPA by not reducing lending rate with a decline in policy rate. This increases profitability from well functioning loans thereby reducing losses from NPA's.

The environment for timely transmission of policy rates to banks lending rates will be considerably improved if:

- ▶ The banking sector's non-performing assets (NPAs) are resolved more quickly and efficiently, by way of establishing Public Sector Asset Rehabilitation Agency (PARA).
- ▶ Recapitalisation of the banking sector is hastened.

Women Voices in Elections

Context

Generally the issues of special concern to women are missing from election campaigns. Is this because women are not yet seen as a "vote bank" despite the fact that female voters are turning out in ever larger numbers and, increasingly, exercising their franchise independently of male family members or due to patriarchal mindset?

The constitutional provisions and reservation at local government are increasing their participation in the decision making process but yet the women voices in elections are fewer as compared to their population size.

Recent elections have seen a number of women issues being prominently taken up, the issues of liquor ban in Bihar, bicycles for girls in UP, drinking water, sanitation are some of them. This indicates that there is an increased qualitative participation of women in elections and not just quantitative. Despite this there are various issues like domestic violence, low sex ratio, reservation for women, better economic opportunities which are not taken or if taken are shelved after elections. This presents a dismal picture of poor women voices in Elections which on one side shows increment in voices but it fades after the election result.

Why low number of women issues in elections?

A number of historical, social, cultural and political factors have combined together to keep women voices unheard in elections.

- ▶ **Historically** under patriarchal family and social structures women have been relegated to the household and their participation in public sphere has been very minimal. This trend continued even after the emergence of democratic polity based on universal adult franchise.
- ▶ Low level of **literacy** rates among women hindered their empowerment, knowledge and understanding of various issues, channels available to them for redressal of their issues. In these circumstances they followed what male members said.
- ▶ Indian women are **tradition and custom bound**. Not raising their voice, accepting whatever male members say have become part of their life. Many even consider suffering as their destiny and as part of penance for past acts.
- ▶ Lower number of women candidates in elections prevented mass mobilization of women around women issues. Out of nearly 8, 250 candidates in 3014 general elections only 668 were women.
- ▶ Less participation of women in rank and file of political parties was another factor. Rank and file plays very important role in taking the ground issues to higher levels which then become important issues in elections.
- ▶ They have never voted on bloc like Dalits and Muslims in any election. It also shows that there has never been a concerted effort by political parties in mobilizing them.
- ▶ Women participation in **media** is also low. Media generally plays the role of opinion maker and highlights issues. In absence of women participation women issues are relegated to backstage.

Despite these factors active recent elections have shown women becoming vocal about their issues and this has increased their voice in elections.

Why in recent there have been rise in women Voice in elections?

- ▶ **Reservation for women in panchayats** gave a dignified status and equality to women. It gave them confidence that they can take up and solve their issues. Various women **Sarpanchs** took up the issues of liquor, street lights and women safety, women trafficking, girl child marriage.
- ▶ **Democratic politics at village and urban level** gave women understanding of their rights, working of democracy and they started asserting their rights through demands.
- ▶ **Emergence of SHG movement** which gave voice and confidence to women. It also provided local level leadership to women who were bold to mobilize women and present their issues to politicians.
- ▶ Increased **education** among women made them aware about their rights, factors which effect their growth and they become more vocal about these issues. This is much more evident in urban areas. Girls demand for their safety is the prominent example of it.

A blog on Gender, Media and Election Watch lays out Girls' Charter of Demands for the Brihanmumbai municipal corporation polls on 21 February. The charter lays out a vision for a girl-friendly city, and lists a number of demands under the "Right to safe and free mobility and freedom from violence", "Functioning anti-sexual harassment cells in schools", "Right to safe spaces to learn and grow" and "Right to hygiene, health and well-being".

- ▶ It also lead to loosening the hold of patriarchy in family. When women vote according to their own choice rather than according to the diktats of male head it is natural that they will look for candidates which address their issues.
- ▶ FPTP system which makes every vote important and women as a block can play very important role as it forced parties to take up women issues to get their votes.

FPTP: First past the post system. It is a voting method in which voters are required to indicate on the ballot the candidate of their receives more votes than any other wing.

- ▶ **Liberalization, globalization and penetration of media**, cinema made women much more aware, made them to compare them with others and understand their situation. **Khabar Lahariya, Network of Women in Media, India (NWMI)** are some news organizations which cater to the issues of marginalized women at local level.
- ▶ **Emergence of women leadership**, which take women issues proactively. Women Chief Ministers, ministers and other role models gave women space for participation and putting their concerns.
- ▶ **Feminist movements** have also played their own role in raising women issues.

What are its implications?

Increased women participation in elections in terms of voter turnout and issues raised is a good sign for Indian democracy. It will not only increase the faith of women in democracy but will also help them in tackling various issues which they have been facing till now. This will put pressure on the administration to democratize the public spaces, government offices like police station, judiciary (as happened in Bihar and Delhi) and push out or reform patriarchal organizations like **khap panchayats**.

What else should be done?

A quick scan of the manifestos of major political parties in the last few general elections shows that gender issues figured prominently. But manifesto promises on women's issues are clichéd and are conveniently forgotten afterwards. The failure in passing the women's reservation bill in parliament is a clear testimony of the lack of seriousness and will of political parties in addressing women's issues. Therefore there is great need to change the mindset of men and focus on "**he for she**" campaign wherein men see women as equal partners in development and give same importance to women issues.

Election manifesto provisions related to Women should include:

- ▶ **Educate for equality:** Comprehensive, well-funded and long-term public education programmes to transform the culture of patriarchy and gender-based discrimination.
- ▶ **Make laws count:** Get each government agency to produce a detailed and funded action plan to end violence against women and increase the number of judges to 40 per million populations.

- ▶ **Put women in power:** Ensure political empowerment of women by approving the Women's Reservation Bill in Lok Sabha.
- ▶ **Police for the people:** Change service rules to recruit, promote and penalise police and prosecutors based on gender metrics.
- ▶ **Swift, certain justice:** Improve the laws to end violence and discrimination against women and sexual minorities.
- ▶ **Economic flourishing:** Ensure dignified and secure employment for women, with equal pay for equal work.

Chennai Oil Spill— Issue, Impact and Solution

Context

On 28th January, MT BW Maple and MT Dawn Kanchipuram carrying LPG and petroleum oil lubricant, respectively, collided off Kamarajar Port Limited in North Chennai resulting into spillage of bunker oil used by the ship into the Bay of Bengal. Since then it has made a catastrophic impact on the environment in the region.

Hereby analyzing the concept of oil spill, its detrimental impacts on environment and society.

An **oil spill** is the release of a liquid petroleum hydrocarbon into the environment, especially marine areas, due to human activity, and is a form of pollution. The term is usually applied to marine oil spills, where oil is released into the ocean or coastal waters, but spills may also occur on land. Oil spills may be due to releases of crude oil from tankers, offshore platforms, drilling rigs and wells, as well as spills of refined petroleum products (such as gasoline, diesel) and their by-products, heavier fuels used by large ships such as bunker fuel, or the spill of any oily refuse or waste oil.

Detrimental impacts of Oil Spill

The recent Chennai oil spill has adversely affected the humans, animals and rich biodiversities of the region.

Impact on marine ecosystem

- ▶ An oil spill, no matter how big or small or where, is considered a serious threat to **marine environment**. Petrochemical oil contains several aromatic hydrocarbons such as alkanes, xylenes

and cycloalkanes, among other chemicals, that are known to be toxic for fish and humans alike. Further, the presence of such acutely toxic chemicals in the fish could prove fatal to animals up **the food chain**.

- ▶ Floating oil can be lethal to animals that are found higher up the water column, such as **sea turtles** and **dolphins** that surface to breathe. Close to 40 turtles, classified as vulnerable by the International Union for the Conservation of Nature (IUCN), have washed ashore covered in oil since the spill.
- ▶ Oil also poses a significant threat to **sea birds** that dive to catch fish. Now is the time of the year when migratory birds from all around the world, like Siberian cranes and flamingos, visit warmer climates. Heavy-oil messes with the hydrophobic properties of the birds' feathers and reduces their ability to keep warm, exposing individuals to severe weather conditions and even death due to hyperthermia.
- ▶ Heavily furred **marine mammals** exposed to oil spills are affected in similar ways. Oil can also blind an animal, leaving it defenseless. The ingestion of oil causes dehydration and impairs the digestive process.
- ▶ Another problem posed by floating sheets of oily liquids is that they reflect sunlight, thus reducing the amount of light that percolates into the water. This stalls photosynthesis deeper down and affects the balance of the **ecosystem**.
- ▶ Mud and clay particles present in the sea, along with the chemicals used in oil dispersants, get mixed together and settle in the form of heavy, oil-rich particles on the seabed. This is a predicament for **bottom-feeding organisms**, especially commercially valuable species such as prawn and crabs whose primary habitat is the seabed.

Impact on mangroves

- ▶ It will cause problem to **forests** in the region and hence will affect the rich marine biodiversity of the region. Reports indicate that the slick has spread to Cuddalore in the south, will soon reach the Pichavaram mangroves and then northwards to affect the Pulicat mangroves. The compromising of mangroves would be a disaster of epic proportions.

Impact on human livelihood

- ▶ There are two groups of chemicals in crude oils that are particularly hazardous to the **health of Human beings**. One is volatile organic compounds (VOCs), which include chemicals like benzene and xylene, and the other is polycyclic aromatic hydrocarbons. They can cause irritation of the skin, inflammation of the eyes, and respiratory problems.
- ▶ Volunteers and residents of the region have made complaints of such issues. In the long term, the damage could be far more severe in the form of Cancer, specifically leukemia and skin cancer, along with chronic body pain and an increased likelihood of heart attacks.
- ▶ Further, it will impact the **livelihood of fishermen** as oil spill affect their fish catching ability; **coastal trade and tourism** and **marine resource extraction** activities in the region.

Solutions**Measures to Prevent oil Pollution**

A major effort needs to be made to control and remove oil pollution. *In order to control oil spills at sea, it is necessary to take the following actions:*

- ▶ Transferring oil from a tanker which has been involved in an accident to another vessel using either the tanker's own pump or the suction pump of the reserve vessel to limit the amount of spill transferring.
- ▶ Containing spilled oil: immediate attempts have to be made to contain the spill and prevent it from spreading to beaches, navigation channels, harbors etc.

World over many technologies have been implied to containing and neutralizing impact of Oil spill such as Oilzapping, bioremediation, control burning, use of dispersants etc.

Physical recovery- In the case of an oil spill in the sea, it is advised to barricade the area with booms, which are like floating tyre tubes. This arrests the spread of oil due to water currents. The first option is always physical recovery, once the oil is contained to use a vacuum sucker to remove the oil.

Bioremediation- It is a recovery method to control oil spill where oil-eating bacteria are used. These are 3 kinds namely Sulfate Reducing Bacteria (SRB), Acid Reducing Bacteria and General Aerobic Bacteria (GAB). Microorganisms such as Alcanivorax or MethylocelaSilvestris can be used to break down or remove oil.

Oil zapping- It is a kind of bioremediation technique. In this technique, five bacterial strains are mobilized and mixed with a carrier material like powered corncob. This mixture of five bacteria is called oil zapper. Oil zapper feeds on hydrocarbon compounds present in crude oil and converts it into harmless CO₂ and water.

Bioremediation accelerator- Oleophilic and hydrophobic chemical, containing no bacteria, chemically and physically bond to both soluble and insoluble hydrocarbons. This bioremediation accelerator acts as a herding agent in water and on the surface. Undetectable levels of hydrocarbons can be obtained with the use of Bioremediation accelerator.

Controlled burning- Controlled burning can effectively reduce the amount of oil in water, if done properly. But it can only be done in low wind and can cause air pollution.

Use of dispersants- Oil floats on water because of high surface tension, dispersants work by reducing the surface tension between oil and water. So oil would dilute and it will fall to the ocean floor. However, laboratory experiments showed that dispersants increased toxic hydrocarbon levels in fish by a factor of up to 100 and may kill fish eggs. It can also contaminate coral in the sea.

Solidifying- Solidifiers are composed of tiny, floating, dry ice pellets, and hydrophobic polymers that both adsorb and absorb. They clean up oil spills by changing the physical state of spilled oil from liquid to a solid, semi-solid or a rubber-like material that floats on water. Solidifiers are insoluble

in water, therefore the removal of the solidified oil is easy and the oil will not leach out. Solidifiers

have been proven to be relatively non-toxic to aquatic and wild life.

Conclusion

As per the *Geneva Convention* (1958) every state must draw its regulation to prevent pollution of the seas through discharge of oil from ships or pipelines or resulting from exploitation and exploration of the sea-bed and its sub-soil. It must take measures to prevent pollution of the seas from the dumping of radioactive waste and other

harmful agents. The coastal state is obliged to undertake in the safety zones (around island/ installations) all appropriate measures for the protection of the living resources of the sea from harmful agents.

Concrete steps are must to reverse the environmental impacts of oil spill.

GI Tag – Meaning and Significance

Context

A geographical indication (GI) is a name or sign used on certain products which corresponds to a specific geographical location or origin (e.g. a town, region, or country).

India, as a **member** of the World Trade Organization (WTO), enacted the Geographical Indications of Goods (Registration and Protection) Act, 1999 has come into force with effect from 15 September 2003.

Darjeeling tea became the **first GI** tagged product in India, in 2004-05, since then by November 2015, 272 had been added to the list.

The GI tag ensures that none other than those registered as authorised users (or at least those residing inside the geographic territory) are allowed to use the popular product name.

Introduction

- ▶ The origin of the GI tag can be traced back to when **WTO** administered an international agreement in 1994 called the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) to safeguard IPs of member countries and set down certain standards for it.

- ▶ Protection under TRIPS is defined in two articles – Article 22 and 23.

As per **Article 22**, GIs are protected to avoid providing public with misleading information and to prevent unfair competition, and thus, products under this article are provided with standard protection. On the other hand.

Article 23 is mostly used for GI tags for wines and spirits and are subject to a **higher level of protection**.

- ▶ GIs have been **defined** under Article 22(1) of the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement as: “Indications which identify a good as originating in the territory of a member, or a region or a locality in that territory, where a given quality, reputation or characteristic of the good is essentially attributable to its geographic origin.”
- ▶ It is significant to mention that GI rights are given to an association of persons, producers, organization and not to a single person **because** geographical indications are **not built up by one individual but by a community of persons**.
- ▶ The registration of GI is valid for a period of **10 years** each which can be renewed from time to time. If the GI is not renewed then it will be removed from the register.

GI	TRADEMARK
It is given to a product from a certain place	It is given to a product from a certain place.
It can only be made at a certain place	It can be manufactured anywhere around the world by the same company.
It is given for “ Goods ”	It can be given for the “ Goods ” or the “ Services ”
It indicates the geographical location of the product and is enjoyed by the entire community of the region	It is enjoyed by a single entity and is exclusive and not shared .

- ▶ A product is best known by its reputation, characteristics and its quality, which is in most cases dependent on its place of origin.
- ▶ GI status is also believed to be the **oldest** form of Intellectual Property (IP) protection. Some products worldwide with GI tag include Champagne, Feta cheese, tequila, Ceylon tea, Antigua (Guatemalan) coffee, and Kalamata olive.
- ▶ The tag is given to authorised users in a certain country, who can use it exclusively, and no unauthorised person is permitted to use the same.
- ▶ Customs authorities have the power to seize imported goods at the border, if there is prima facie evidence that a product is infringing on the geographical indication of the rights holder.
- ▶ Once a GI is registered for any good in a country, the database on WTO website should be updated and a circular or notice should be shared with its member governments. The government in turn should publicise in their respective countries the fact that a certain GI registration has been awarded. This multilateral GI registration system is inarguably required immediately.
- ▶ GI tags have to be registered country-wise if they are to bear any significance because 'multilateral GI registration system' hasn't been established yet under WTO; except of course in the case of wines and spirits.
- ▶ For Example: Sometimes countries go for a joint GI: Philippines and other countries are selling their rice as "Basmati" in EU and USA.

Significance:

- ▶ As per the TRIPS agreement, member nations have to respect geographical indications, and have to undertake measures to prevent violation of GI rights and another nation cannot impart trademark for the same product that enjoys GI status in a member nation.
- ▶ The GI tag ensures that none other than those registered as authorised users (or at least those residing inside the geographic territory) are allowed to use the popular product name.
- ▶ GI tag helps in **increasing brand visibility** and increases the price of the product international market (because consumers in first world prefer such "exotic" items), it **boosts exports**, in certain cases, and it can lead to extra earnings from tourism, and indirectly leads to sustainable Development.
- ▶ The tag is developed to **protect consumers from misleading information and fake products**, and producers from having to resort to selling goods for lowered prices. For instance, if someone sells counterfeit Darjeeling tea, he can be taken to court, because that product bears a GI tag in India.
- ▶ Products with a GI tag get **premium pricing**, thus helping exporters earn better, and which in turn incentivises producers.
- ▶ For poorer economies, the product recognition is like an insurance or protection, especially for those where manufacturing happens across rural areas and with producers who cannot invest in branding owing to a lack of 'marketing muscle'. For these producers the GI tag helps create brand equity. Like it has in the case of tequila manufacturers in Tequila (Mexico).
- ▶ Seven agricultural products of the Maharashtra state were issued the Geographical Identification (GI) mark this week.

Beed's custard apples, Jalna's sweet oranges, Jalgaon's Bharit Brinjal, Waigaon's turmeric, pomegranate from Solapur, figs from Purandar and raisins from Sangli were issued GI certificates by the Agricultural Geographical Indications.

As most of the GI products are from villages, an export market is created for these areas and leads to spurt in international demand for them. Moreover, farmers are benefited by this process after they register as authorized users.

- ▶ The GI tags helps consumers to get quality products of desired traits.
- ▶ This identity helps in preventing misuse of a registered GI. Moreover, the legal protection of GI boosts exports. GI tag not only helps the country's export market but also helps in promoting economic prosperity of the producers.
- ▶ Registration of the product under the GI facilitates better legal protection and the authorised user can exercise his right to use the tag effectively.

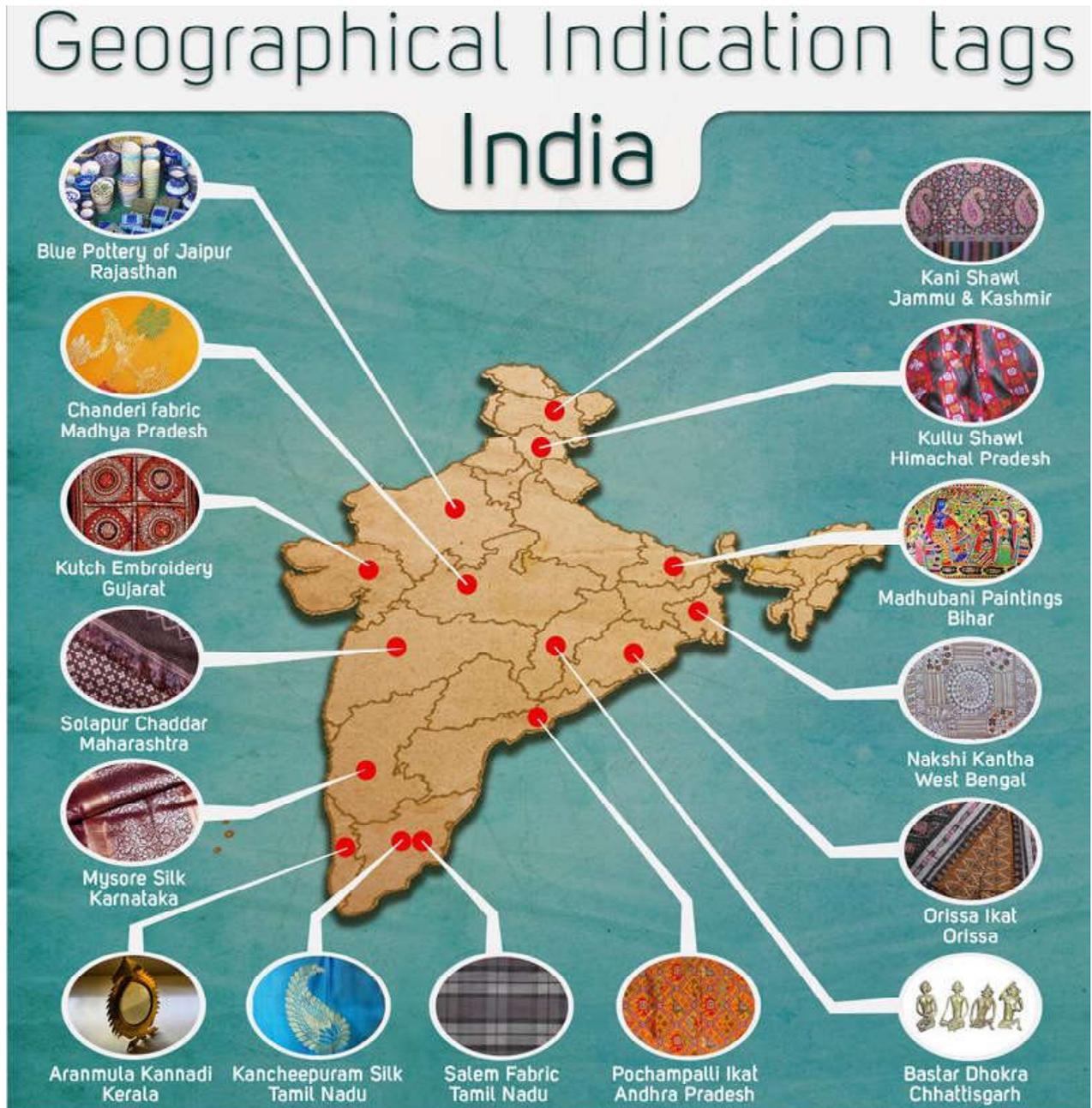


Fig. 1

India - GI Tags:

- ▶ Government of India enacted Geographical Indications of Goods (Registration and Protection) Act in 1999. (Came into force in 2003). Under this act, Registrar of Geographical Indications is the person that will take petitions for GI tag.
- ▶ An **Intellectual Property Appellate Board** hears appeals over the decisions of the Registrar of Geographical Indications. Geographical Indications Registry is there to keep the GI-database at **Chennai**. In India, GI can be given to agricultural, natural or manufactured goods originating in the said area.
- ▶ The **top five states** that have the maximum number of products with GI tags are Karnataka (33), Tamil Nadu (24), Kerala (22), UP (21) and Odisha (15).

GI tag surely makes us proud of the various products of our country and if India wants to use the GI tags for gaining a toe-hold in the world market, the government must first encourage awareness amongst those producing these goods. There is a need to create a policy framework for it. While there is no doubt that GI status in itself is a **brand building tool**, the government will need to provide funding, tax breaks and education to make GI tags count.

Make in India in Defence: Real or Rhetoric?

Context

The 'Make in India' programme puts great thrust on sustainability. The Make in India defence initiative by the Government is focusing its efforts on increasing **indigenous defence manufacturing** and becoming self-reliant. For Make-in-India to take off in defence production, Govt has taken effective measures in the last one year.

First and foremost step is to revamp the India's infamously long-drawn procurement process which leads to technology obsolescence, higher cost and frustrated investors. On this line government has released new Defence procurement Procedure in 2016.

DPP-2016 has introduced specific provisions that will act as a growth stimulus to the domestic defence industry in order to promote indigenous design and development of defence equipment.

DPP 2016 has introduced the Buy-IDDMP category of acquisition and accorded it the top most priority. For the first time ever, provision to procure equipment with enhanced performance parameters, has been accounted for - this will enable the armed forces procure the most advanced weapon systems available in the market. DPP 2016 also provides greater impetus to the MSMEs, with certain category of "Make" projects reserved exclusively for them. There are also other provisions and

procedural measures that have been introduced to make the procurement process more efficient and effective.

Under this the Centre is attempting to boost MSME sector's contribution towards indigenous manufacturing in defence from the present **20-30 to 70 per cent** in the **next five years**. This will not only boost opportunities for the MSME sector, but also lead to job creation. Besides Government is also working to promote manufacturing clusters for indigenous defence production and finalising Request for Proposals (RFPs) for procuring ammunition of the value of Rs 2,500 crore per year.

However, the released DPP 2016 document is not a complete one, as a key chapter on strategic partnership and all the relevant annexure, appendices and schedules are still a work in progress and are expected to be released later as part of the comprehensive DPP-2016.

Introduction

India has the **third largest military in the world** and is the sixth biggest defence spender. The military budget of India is about 2.4% for year 2015 of the total GDP as per World Bank statistics.

According to the Stockholm International Peace Research Institute (SIPRI) report, India was the **world's largest importer of weapons and military equipment** in 2013, 2014 and 2015.

India is one of the largest importers of conventional defence equipment and spends around 30% of its total defence budget on capital acquisitions. At present **60% of defence related** requirements are met through imports, this makes it imperative to bolster domestic manufacturing to reduce imports and evolve robust domestic defence industrial ecosystem.

Make in India in Defence

India's imports, accounting for **14 per cent of global arms imports**, were **three times** greater than those of China and Pakistan. **A major reason** for the high level of imports is that India's arms industry has so far largely failed to produce competitive indigenously-designed weapons.

This is largely because defence sector is dominated by **inefficient public sector** in design development, research and Manufacturing.

We need to learn from US and China both draw heavily on experts from their industry, universities and the SME sector and use sale of defence products as a strategic tool in diplomatic negotiations.

There is a need to encourage private sector participation in Defence production. Private sector participation will help foreign original equipment manufacturers to enter into strategic partnerships with Indian companies and leverage the domestic markets as well as aim at global markets.

Besides helping in building domestic capabilities this will also bolster exports in the long term, reduce imports and current account deficits significantly. The country's extensive modernisation plans with an increased focus on homeland security and India's growing attractiveness as a defence sourcing hub could act as incentives for luring Private sector too.

Government Policy

Various steps taken up by government in this context are as follow:

- ▶ **FDI:** 100% FDI in defence sector: Up to 49% under automatic route; FDI above 49%, through Government route where it is likely to result in access to modern technology.
- ▶ **Offset requirement:** Offset agreements are arrangements in which the seller of a product or service agrees to buy products or services from

its client as an inducement. Under the offset clause - Mandatory offset requirements of a minimum of 30% for procurement of defence equipment in excess of USD 307.69 million have been envisaged.

- ▶ **Defence Procurement Procedure (DPP) - DPP** has been amended in 2016 to provide for IDDM products (Indigenously Designed, Developed and Manufactured). Under this category preference would be given to procurement from Indian vendors of products that are indigenously designed, developed and manufactured, and have at least 40% indigenous content.
- ▶ **Duty Exemption:** The custom duty exemption on import of defence equipment has been removed to encourage imports and incentivize domestic manufacturing.
- ▶ **Strategy for Defence Exports:** In September 2014, the Strategy for Defence Exports (SDE), which provides clear cut procedures and an institutional mechanism for export promotion and regulation, was announced.
- ▶ **Make in India Defence Portal:** A 'Make in India' portal for Defence Production has been launched. It provides policy and procedural issues relevant for defence manufacturing industry.

Defence Procurement Procedure (DPP)

- ▶ The Defence Procurement Procedure (DPP) is not merely a procurement procedure- it is also an opportunity to improve efficiency of the procurement process, usher change in the mind-sets of the stake holders and promote growth of the domestic defence industry.
- ▶ However, these opportunities are not natural outcomes of merely publishing the DPP and are highly dependent on the manner in which the DPP is implemented. In that sense, DPP should be amply supported by an eco-system of result orientation, commitment to timelines, iterative learning and continuous improvement- involving the active ownership of all stakeholders concerned. Hence the Ministry of Defence (MoD) is determined to treat DPP 2016 as a dynamic and an evolving document and is committed to making improvements based on emerging data and anecdotal evidence, to realize the vision of Make in India in the defence sector.

- ▶ The Ministry of Defence (MoD) has released the revised Defence Procurement Procedure (DPP) on 28 March 2016. The document came into effect from 01 April 2016 and is applicable to all procurement since then. The revised document has set the tone to boost the 'Make in India' initiative in the defence sector, and to speed up the procurement process.

DPP2016: SALIENT ISSUES

The DPP-2016, envisages an array of features which articulates the peculiar nature of defence acquisition and the imperatives of self-reliance in defence production, a new procurement category, favouring purchase of locally designed, developed and manufactured products, higher yet flexible indigenisation content requirement in the existing '**Buy (Indian)**' and '**Buy and Make (Indian)**' procurement categories, a comprehensively revamped 'Make' procedure; an institutionalised set of steps for processing the request for information (RFI) and certain measures to deal with procurement in single-vendor situations.

- ▶ '**Buy (Indian-IDDM)**' Category - DPP-2016 has introduced a new procurement category, Buy (Indian-Indigenously Designed, Developed and Manufactured), or 'Buy (Indian – IDDM)'. In terms of prioritisation, the new category, which would also be used for procurement of all locally designed and developed items under the revamped 'Make' procedures, is placed above the existing 'Buy (Indian)' category which, in turn, is placed above the other categories, namely the 'Buy and Make (Indian)', 'Buy and Make' and 'Buy (Global)', in that order. Under the new category, indigenously designed equipment with 40 per cent indigenous content (IC), or equipment not necessarily designed in-house but having a 60 per cent IC, is intended for procurement from the local industry.
- ▶ Higher yet Flexible Indigenous Content Requirement. **With a clear intention to boost the local content in procurement,**

the revised DPP has enhanced the indigenous content requirement under the existing 'Buy (Indian)' category from the earlier 30 per cent to 40 per cent.

- ▶ **New Make Chapter** - Effecting a crucial change, the new DPP has divided the 'Make' projects into two categories – **Make-I** (Government Funded) and **Make-II** (Industry Funded) – besides giving a decisive say to the Micro, Small and Medium Enterprises (MSMEs), which had long craved government attention for their role in defence indigenisation efforts.
- ▶ **For the MSMEs**, the new procedure provides them the first right to undertake prototype development up to Rs.10 crore under the government-funded 'Make' projects (up to Rs. 3.0 crore in case of Make (Industry Funded)). In other words, only when MSMEs are not interested in taking up small valued projects, it can be opened up for participation by the bigger industry players.
- ▶ **Introduction of L1-T1 Methodology for Award of Contracts.** In a clear departure from the past, DPP-2016 has, for the first time, introduced what is widely known as the L1-T1 methodology for selecting the vendor under the 'Buy' and 'Buy and Make' schemes. The new methodology, in essence, means that the final bidder would not necessarily be selected on the basis of lowest price quoted by the technically-compliant vendors (the so-called L1 methodology), but by a combination of price and superior technology offered by qualified vendors.
- ▶ **Provision for 'Single OEM, Multiple Bids' and 'Multiple Bids by Single Indian Vendor'**. Accepting the uniqueness of defence procurement, DPP-2016 has incorporated two provisions – 'single OEM, multiple bids' and 'multiple bids by single Indian vendor' – in which although the bids are single-vendor in nature they would not be retracted because of lack of competition. The first case is likely to arise in 'Buy and

Make (Indian)' category in which a single foreign original equipment manufacturer (OEM) offers the same product through multiple bids in collaboration with a number of Indian companies.

- ▶ **Hike in Offset Threshold Limit.** DPP-2016 has raised the offset threshold limit to Rs 2,000 crore (approximately USD 305 million) from Rs 300 crore.
- ▶ **Definition of Indian Vendor.** Providing clarity as to who is an Indian vendor, DPP-2016 defines the same as an Indian entity (which could include incorporation, ownership model, and proprietorship, among others) that is established under the Companies Act or any other applicable regulations
- ▶ **Single Vendor Situation.** In a major departure from the earlier DPPs, DPP-2016 has allowed the procurement process to continue in certain situations where only one bid is received in response to an request for Proposal (RFP).

Comparative Analysis of Defence Production and Procurement INDIA vs US & CHINA

- ▶ The two defence giants—the US and China—have contrasting manufacturing models, with dependence on private and government sector, respectively. Excellence in the US is driven by the capital markets and in China by the fear of instant retribution. The US allows fully owned subsidiaries of foreign defence companies such as Airbus, BAE, Saab, Rolls Royce, Elbit, etc, while China doesn't follow this path.
- ▶ There are similarities as both the US and China have a fierce will to dominate the world through a robust economy and a strong military. Both draw heavily on experts from their industry, universities and the SME sector; and use sale of defence products as a strategic tool in diplomatic negotiations.
- ▶ In the late 1970s, the Chinese realised that their defence industry was becoming a '**golden rice bowl**'—rich, yet begging for more. Undertaking

radical reforms, they were the fifth-largest arms exporters by 1987 and, in 2014, the third-largest.

- ▶ In contrast, India, with the third-largest military and the seventh-largest defence budget, is totally dependent on the West for critical equipment. Several parliamentary committees and experts have highlighted a shortage of fighter jets, helicopters, submarines, missiles, artillery, assault rifles and ammunition, etc. India's battle-readiness vis-a-vis the China-Pakistan alliance is getting worse by the day. This needs to change.

Way Forward

- ▶ We need a bold three-pronged approach: **abolish state monopolies, support Indian private sector, and ease the entry of global OEMs.**
- ▶ Defence procurement should be handled by an independent Defence Commission, headed by a technical person of cabinet rank, reporting directly to the PM, akin to India's highly successful Space and Atomic Energy Commissions. MoD being the end-user can provide its requirements, inputs and/or criticism but not interfere.
- ▶ The Defence Commission should connect with private sector, academia, military veterans and talented individuals and identify critical technologies that India should be completely self-reliant in. These could be stealth systems, avionics, propulsion systems, precision munitions, UAVs and advanced materials etc. The rest can be imported as trying to do everything is impractical.
- ▶ DRDO and the DPSUs needs to be privatised - Their scientists, engineers and technical staff would be more productive under private owners. They should compete with other private entities for business.
- ▶ MoD needs to undertake a Procurement Maturity Assessment (PMA) by external experts. Large procurement programs in the west are handled by duly-qualified private consulting firms under the overall supervision of MoD.
- ▶ The FDI limit in defence should be raised to 100% and subjective conditions like 'modern technology' should be dropped. MoD should select 'strategic partners' for at least three large-scale procurement programs by the end of 2017, to facilitate long-term investments.

Conclusion

- ▶ 'Make in India' in defence has unfortunately not taken off till now, despite the talk. Changing the status-quo requires a radical shift in procurement strategy, approach and funding. For real Make-in-India to happen, we need a bold three-pronged approach: abolish state monopolies, support Indian private sector, and ease the entry of global OEMs further. India is the next emerging Superpower. It is important that we build our Defence capabilities indigenously to realise this dream.
- ▶ A year has passed in the debate on FDI. The increase from 26% to 49% has yielded precious little. It needs to be raised to at least 74% to enable real high-tech investments. The ecosystem that will be created will allow Indian companies and professionals to learn, innovate and export back to the OEMs. Two decades from now, some Indian companies may rise to become competitors to global defence players.

North Korea

Test Ballistic Missile

Context

North Korea had successfully test-fired a new type **medium-to-long-range ballistic missile** on 12 Feb 2017. N. Korean leader Kim Jong Un supervised the test of the Pukguksong-2, a weapon capable of carrying a nuclear warhead. The missile was fired at a high angle in consideration of the safety of neighbouring countries.

Its first such test since U.S. President Donald Trump was elected in November, 2016. It drew swift condemnation globally and the leaders of South Korea, China, Japan and US are worried over the unstoppable nuclear developments in North Korea.

Japan condemned the test, while the head of the UN security council cited it as a "clear violation" of numerous Security Council resolutions. North Korea has been hit by five sets of UN sanctions since it first tested a nuclear device in 2006, but has insisted it will continue to build its Nuclear capabilities.

Introduction

The founder and first leader of North Korea, Kim Il Sung, created the country's policy of *juche* or "self-reliance," which cut off North Korea economically and diplomatically from the rest of the world, even in times of great need, such as famines.

To become self reliant in defence capabilities, North Korea has conducted five nuclear tests since 2006, in violation of international law. Previous two tests were conducted in 2016, including one that was a powerful **hydrogen bomb**. The North Korea is believed to have an arsenal of nuclear weapons but the size is unknown.

The recent launch of a medium-range ballistic missile by North Korea on 12 Feb, 2017 is yet another reckless provocation by its leader Kim Jong Un. Last year, the Kim regime tested a dozen missiles and even vowed to launch an intercontinental ballistic missile that could hit the U.S. Each time the tests have triggered angry and anxious responses from world leaders, particularly from Japan, South Korea and the U.S.

The UN Security Council has already imposed a host of sanctions on the country. But neither sanctions nor warnings issued by other powers have had any impact on North Korea's aggressive behaviour.

The latest missile test, the first after Donald Trump became the U.S. President, comes at a time when he was hosting Japanese Prime Minister Shinzo Abe. This is not the first time North Korea is challenging a new U.S. President with a weapons test. In 2009, a few months after Barack Obama took office, Pyongyang conducted an underground nuclear blast. US saw it as a provocation and responded with the tightening of international sanctions on the country.

Pyongyang's weapons programme

North Korea has a long history of developing lethal weapons, including long-range missiles and nuclear bombs

- ▶ 1970s North Korea starts working on a version of the Soviet Scud-B (range 300 km). Test-fired in 1984.
- ▶ 1987-92 North begins developing variant of Scud-C (500 km), Rodong-1 (1,300 km), Taepodong-1 (2,500 km), Musudan-1 (3,000 km) and Taepodong-2 (6,700 km)

- ▶ 1989 US satellite pictures reveal a nuclear reprocessing plant at North Korea's Yongbyon complex
- ▶ 1998 August North Korea test-fires its first long-range ballistic missile, a Taepodong-1.
- ▶ 2003 North Korea withdraws from the Nuclear Non-Proliferation Treaty.
- ▶ 2005 For the first time, North Korea states that it has nuclear weapons.
- ▶ 2006 July 5 North test-fires seven missiles, including a long-range Taepodong-2
- ▶ 2006 October 9 North Korea carries out its first nuclear test
- ▶ 2009 April 5 The North launches a long-range rocket and announces it will restart its Yongbyon complex despite UN condemnation.
- ▶ 2009 May 25 North Korea conducts its second underground nuclear test, sparking tougher UN sanctions.
- ▶ 2009 July 4 North test-fires seven ballistic missiles off its east coast.
- ▶ 2013 February 12 North Korea conducts third and largest nuclear test.
- ▶ 2015 May North Korea says it successfully test-fired a submarine-launched ballistic missile.
- ▶ 2016 January 6 North Korea says it has detonated a hydrogen bomb.
- ▶ 2017 February Test fired medium to long range ballistic missile

UN Sanction

The UN Security Council agreed to start work on new measures — even though five sets of UN sanctions since the first nuclear test in 2006 have failed to halt the North's nuclear drive.

Sanctions Imposed on North Korea

- ▶ Ban or severe restriction on exports of iron and iron ore, coal, gold, titanium and rare earth metals from North Korea and Prohibits the supply.

- ▶ All countries must inspect cargo in all airports and sea ports destined for and coming North Korea.
- ▶ Countries working in North Korea financial and banking sector are obliged to freeze assets of companies and other entities linked to its missile and nuclear programmes
- ▶ Tightens an arms embargo by banning sales of small arms and bars vessels suspected of carrying illegal goods for North Korea from Ports.
- ▶ UN member states will expel North Korean diplomats engaged in smuggling or other illegal activities.
- ▶ Ban on aviation fuel exports to North Korea, including kerosene type rocket fuel

A missile test launch would further three goals for North Korea

- ▶ North Korea wants to test years of investment in missile research and development. A test would not only serve as a stern warning to the region about the strength of North Korea's ballistic missile capabilities, but also would enhance the legitimacy of North Korean missiles in the weapons proliferation marketplace.
- ▶ Pyongyang's strategic objective is to raise the stakes for the Six-Party talks, which have stalled since North Korea's refusal to return to the table last November. With little incentive for Washington to relent on its long-standing insistence that Pyongyang must first agree to return to the talks without preconditions and the global perception that Iran has become Washington's top priority, a missile test would raise the level of tension and bring focus back to North Korea.
- ▶ Further, a test launch would put yet another issue on the negotiating table and, Pyongyang hopes distract attention from the core issue of its nuclear weapons program.
- ▶ Domestic pressure may also be at play. A missile test would demonstrate the military's supremacy in national policymaking. A launch could also be a tremendous morale boost for the North Korean public.
- ▶ The regime has been testing engines for a new missile since at least 2002, and a successful test would bolster Kim's claims that he is developing advanced technology for his people. This would have the added benefit of boosting

nationalism as a counterweight to increased international pressures on the regime.

Implications:

The North Korean ambition to attain long-range missiles has severe implications for military strategy and geo-politics of the region and at international fora. Some of these are as follows:

- ▶ North Korea's actions may in turn compel its rival countries, especially South Korea, Japan and USA, to deploy nuclear weapons for the defense of US allies in the region against any provocative measures by the DPRK.
- ▶ The DPRK's actions can inappropriately **encourage to other NPT member countries to pursue nuclear weapons technology**.
- ▶ DPRK military initiatives will **disturb arms control and disarmament initiatives** at regional and global levels among major competitors. Any 'countermeasure' taken by USA in the region, in the form of deployment of THAAD or of nuclear weapons, could lead to increased antipathy between China, Russia and the US. These measures would also negatively impact arms control and disarmament initiatives.
- ▶ A test would raise questions about the future **stability and security of the region** and North Korea's enduring role as the region's troublemaker.
- ▶ International security and strategic stability is locked in complex matrix of arms control measures and balance of power. In this context, if even one country – be it USA, Russia or China – triggers an arms race, it would create a **catastrophic chain reaction** among all nuclear countries, especially the US, China, Russia, DPRK, India, and Pakistan, due to their existent threat perception and security dilemmas
- ▶ North Korea's long-range missile is a direct threat to the US, its territory, strategic forces and military bases in the region. The capability is also a challenge for other nuclear countries.
- ▶ Continuous provocative actions by North Korea are also an indicator that it may take similar confrontational measures against its closer rivals, especially South Korea, Japan, and the US and also provoking to its rival countries. DPRK may also attempt to challenge the security and territorial integrity of its 'ideologically rival' countries.

Way Forward

- ▶ As during the Iran case, the European Union could also play the **role of mediator** by inviting both sides to a dialogue for managing the crisis, and insisting on a peaceful resolution.
- ▶ The US should refrain from an over-hasty deployment of the THAAD system or of its nuclear weapons on the territories of its regional allies. Such actions may exacerbate the current 'standoff', not only with the DPRK, but also antagonize China and Russia as well, as both are vehemently opposed to the deployment of the THAAD system in the Korean Peninsula.
- ▶ Both sides must refrain from further provocation to try and arrive at a universally acceptable solution. In the current scenario, engagement via dialogue is the best, and perhaps the only option that could lead to the denuclearization of DPRK. The 'Iran Nuclear Deal' is a useful prototype for the international community to develop such a roadmap
- ▶ As China and Russia have closer relations to DPRK, they may act as a bridge between it and the US, South Korea and Japan, potentially reducing tensions, encouraging a negotiated solution and working towards denuclearization of DPRK to restore peace and stability in the region. The 'Six-party talks' initiative should therefore be restarted.

- ▶ The six-party talks aim to find a peaceful resolution to the security concerns as a result of the North Korean nuclear weapons program. There has been a series of meetings with six participating states: 1. South Korea, 2. North Korea, 3. United States of America, 4. China, 5. Japan, 6. Russia. These talks were a result of North Korea withdrawing from the Nuclear Non-Proliferation Treaty (NPT) in 2003.

- ▶ Sanctions are already in place. The regime is already isolated. War is out of the question as North Korea could directly target America's allies in East Asia with nuclear weapons. One less explored and apparently feasible idea is to get China, which still has some leverage over Pyongyang, on board and engage the Kim regime diplomatically, without removing the sanctions.

Women Safety and Government Initiatives

Context

Women safety has been a major talking point during last few years with new funds, schemes like **Nirbhaya Fund**, **One Stop Crisis Center** being announced along with amendments to legislations related to their safety. Despite these new initiatives and recognition of the requirement for women safety the resources are not sufficiently allocated for these interventions and if allocated are not efficiently utilized resulting into a situation where the crime rate against women has not been declining. The low level of allocations in recent budget is an example of it.

Over the last few years, the issue of women's safety has gained public attention. Even a random scan of the daily newspapers is enough to support this. Women run the daily risk and fear of harassment, attack, assault, rape and murder, both within their homes and outside.

Reasons:

The following are the reasons that make women in the city vulnerable:

- ▶ A poor urban infrastructure – dark or badly lighted streets, derelict parks and empty lots, badly maintained public spaces, inadequate signage, lack of public toilets.
- ▶ Empty streets at night because of early closing of shops and businesses or lack of a tradition of street life.
- ▶ Lack of adequate public transport and apathy of bus drivers, conductors and passengers.

- ▶ Insufficient presence and unresponsive/aggressive attitudes of police and civic authorities.
- ▶ Isolation from neighbors and lack of community life.
- ▶ Traditional notions of privacy and refusal of neighbors/police to intervene in situations of domestic violence.
- ▶ Ideas and beliefs about appropriate behavior, leading to reluctance to protest in cases of public violence.
- ▶ A “macho” culture and a lack of respect for women and women's rights, leading to cases of violence or harassment being ignored or trivialized by the general public as well as those in positions of authority.

What are the main interventions related to women safety?

Women safety plays a very important role in the inclusion of women into the mainstream, their participation in economy and their empowerment. Keeping these things in mind a number of schemes related to women safety had been launched. Some of them are:

- ▶ **Nirbhaya Fund:** The Ministry of Finance, Government of India had set up a dedicated fund called Nirbhaya Fund in 2013, for implementation of initiatives aimed at enhancing the safety and security for women in the country. It is a non-lapsable corpus fund. Various ministries have proposed their schemes using this fund. '**One Stop Centre**', '**Universalisation of Women Helpline**' and '**Mahila Police Volunteer**' were initiated by the Ministry of Women and Child Development from the Nirbhaya Fund.

- ▶ **One Stop Center:** One Stop Centres (OSC) is intended to support women affected by violence, in private and public spaces, within the family, community and at the workplace. Women facing physical, sexual, emotional, psychological and economic abuse, irrespective of age, class, caste, education status, marital status, race and culture will be facilitated with support and redressal.
- ▶ **Swadhar Greh:** is a scheme catering to the primary need of shelter, food, clothing, and medical treatment of women in distress.

- ▶ Apart from the above schemes a number of other initiatives like **Scheme for Combating Trafficking, provision of Protection Officers under the Domestic violence Act** are their which aims at ensuring the security of the women.

What has been the status of implementation?

Most of the schemes launched for women safety have been plagued by low allocation of resources, which has been shown in following table:

Name of Scheme	Nirbhaya Fund	Swadhar Greh	One Stop Center
Total corpus of Fund	3000,000 cr	Estimated requirement 675,000 cr	Estimated requirement 1,50,000 cr
Proposals recommended	2200,000 cr	Fund allocated 187,000 cr	Fund Allocated 1,11,000 cr
Fund allocated in budget	1100,000 cr (2016-17) 700,000 cr (2017-18)	—	—

Why has there been low level of implementation?

There have been a number of reasons which have come together to result into low level of utilization of the resources.

- ▶ Lack of proper planning and needs assessment,
- ▶ Slow uptake of the scheme reflected in few proposals received from States, and
- ▶ Bottlenecks in implementation such as delay in receipt of Utilization Certificates combined with the problem of low budgetary outlays, result in low coverage and poor outcomes of programmes.
- ▶ The low budgetary outlays also result in low coverage of these programmes. As of July 2015,

there were only 311 Swadhar Grehs in the country. Likewise, as of July 2016, there were only 17 One Stop Centres supported by MWCD throughout the country.

- ▶ Low level of women participation in the decision making.
- ▶ Though almost all States have appointed Protection Officers for implementing the Act, it is important for the Union Government to continue supporting States for implementation of the Act. There are significant variations in the provision of Protection Officers and service providers by different states and appointment of Protection Officers with independent charge, which is not being done in several States.

Conclusion

Many cities across the world have implemented innovative solutions to these problems. Strategies include community mobilization (such as forming neighborhood associations), activities for women (such as self-defense training), activities with men (such as campaigns against violence), urban safety planning (such as safe design of public spaces),

interventions with police and administration (such as sensitization and training) and activities with the general public (such as safety audits).

Women use and benefit from the city in ways that are different from those of men. This aspect must be woven into even field of planning and managing the city—from gender assessment of major and

minor infrastructure projects to ensuring crisis centers and protocols at police stations and courts, to conducting extensive media and education campaigns and re-engineering the politics, and more.

However, it must also be recognized that enhancing women's safety requires a wider range of measures to be instituted by a range of ministries in sectors like urban and rural development, sanitation, transport, police, law, and education among others.

The importance accorded to the issue of women's security in the policy discourse is yet to translate into budgetary priorities. Though it is argued that the onus of instituting and funding these measures lies with states, given the criticality of the issue, the Union Government must continue to supplement the efforts of the States in this domain substantially. It is hoped that forthcoming Union Budgets will reflect a greater commitment towards women's safety.

Politicization of the Post of Governor

Context

Functioning of governor has come under criticism because of their partisan actions in recent times. It has been argued that the politicization of the post of Governor has impacted their functioning and which in turn is affecting the governance of the states. Therefore there is an urgent need to look into the process of appointment and removal of the Governor to arrest this trend.

The federal structure of Indian democracy ensures that States, like the Centre, have a parliamentary form of government headed by the Governor.

The Governor of a State plays a multifaceted role. In the normal circumstances, he acts as a vital link between the Central and the State Government. Under the Constitution, Governor is expected to play a double role, as the head of the State and as the representative of the Centre. The Central Government has been kept strong in the Indian federal set up by providing more powers under the Constitution. Moreover, the procedure of appointment and the removal of the Governor, also make the Centre strong because his term of office is not secure and he acts only on the directions of the Centre.

What is the Role Envisaged for Governor?

The post of Governor is not merely of symbolic importance. He plays a crucial role in smooth functioning of federal democracy. Fixed tenure for the Governor ensures continuity in the State

administration as, even though Chief Ministers may come and go, the Governor remains for a period of five years. Unfortunately the current position of law permits the Centre to dismiss a Governor without even assigning any reasons.

Governor is supposed to wear two hats, one that of administrative head of state and the other of 'agent of union government'. India is a federal polity with states being the federal units. **In such circumstances need was felt to appoint Governor as the 'agent of union' to ensure that-**

- ▶ The administration of the state is carried out according to the constitutional provisions
- ▶ To prevent failure of Constitutional machinery and recommend President's Rule in such circumstances
- ▶ To reserve certain bills which goes against the larger interest of the country, against DPSPs and certain other types.

Apart from this he envisaged to act in his own discretion in certain circumstances like appointment of CM when no party has clear majority, reservation of bills for Presidential assent.

Under all such circumstances he is supposed to work in an impartial manner and in the best interest of the country and state.

Why there has been politicization of the post of Governor?

The powers of the Governor combined with process of appointment and removal of Governor leaves a lot of scope for political manipulations and this has been the reason for the politicization of the post.

- ▶ Absence of security of tenure of Governor has been used to remove Governors which do not

align with the political ideologies of the Union government. This was observed in 2004 and then in 2014.

- ▶ Absence of any criteria for appointment has been used to appoint persons favoring a political party.

As a result of this Governors instead of functioning as independent constitutional functionaries have functioned as agent of political parties. Destabilizing the polity of the state through instigating factionalism (allegedly done in Arunachal Pradesh), stifling governance by acting as parallel centers of powers (as accused by TMC government in West Bengal), reserving bills for Presidential assent and delay in appointment of CM to allow for horse trading and then using it a means of imposing President Rule has been some of the modus operandi.

In the real effect and substance, the Governor looks after as well as nourishes the interests of the party or alliance to which he is politically related. He is there in the State to care for the interests of the leaders of party as well as the interests of workers of the party which has inducted him in the State. These party leaders and party workers are in a position to attract the vote bank of the State in favor of the party to which the Governor is politically related.

Governor in the real sense is a protem of the party in power. As a natural corollary, he is to look after the vested interests and health of the party in power to which he is politically related. Consequently, his judgment is bound to affect the State's decision making process by the ideas which he already has on his slate. In this state of mind intrinsically he will be pushed to do even apolitical act to safeguard the health of his party, may it adversely affect the smooth functioning of the State. While passing through this sort of affairs, off and on, he has to act as a cross Governor. It is submitted that the contradictory provisions relating to his tenure of office are the hurdle in his path to be realized as a positive Governor. Thus, Article 156 of the Constitution is used and misused to meet the partisan ends of the party in power at the Centre.

How it Affects Indian Polity?

India is a federal polity in which close co-operation between the union and states is very much essential

for the overall growth and development of the country.

- ▶ Politicization of the Governor post and his partisan functioning affects the co-operation among federal units. The casualty can be important legislations like GST which are delayed. Certain anti-terror bills have blocked because of this.
- ▶ The energies of the governments which should have been used for providing effective governance are used to counter the designs of Governor or Union government or political party in power in center.
- ▶ It gives rise to factionalism, horse trading at the state levels, which attacks the principle based polity. Faith of people in democratic institutions and political parties is shaken which can give rise to low voter turnouts.

Therefore there is urgent need to depoliticize the office of Governor if democratic set-up, federal polity, governance are to be strengthened in order to achieve the aspirations of the people.

What Steps Should be Taken to Avoid this Trend?

To achieve this, a lot of recommendations have been made by various commissions.

Sarkaria Commission on center-state relations recommended that:

- ▶ Governor should be provided with the security of tenure,
- ▶ He should not be a member of ruling political party,
- ▶ Chief Minister must be consulted for appointment of Governor,
- ▶ He should not be from that state and should be a person detached from politics
- ▶ Governor should be removed before his tenure only on the grounds as if aspersions are cast on his morality, dignity, constitutional propriety, etc

Punchi Commission said that 'doctrine of pleasure of President' should be removed for office of Governor.

Related to functioning of Governor and imposition of **President Rule, Supreme Court in S. R**

Bomma case said that the substance used for imposition of President Rule can be reviewed by judiciary, thus putting a check on unscrupulous use of Article 356. It further affirmed that the test of majority has to be done on the floor of assembly not in Governor house, thus putting a check on the discretion of Governor.

Despite these recommendations the post of Governor has continuously been embroiled in one controversy or other, signifying that the individuals and their ethics plays an important role in functioning of an institution. Thus the solution lies in putting individuals with high moral standards who can discharge their functions in an efficient, transparent and impartial manner.

Policy on Synthetic Biology

Context

Synthetic biology is an interdisciplinary branch of biology and engineering. Synthetic biology aims to make biology easier to engineer. Synthetic biology is the convergence of advances in chemistry, biology, computer science, and engineering that enables us to go from idea to product faster, cheaper, and with greater precision than ever before.

A community of experts across many disciplines is coming together to create these new foundations for many industries, including medicine, energy and the environment.

India is taking its first steps to evolve a policy on Synthetic Biology (SB) through which new life forms can potentially be made in labs and existing life forms, such as bacteria and other microbes, tweaked to produce specific proteins or chemically useful products. The Environment Ministry will be convening a group of experts on biodiversity and biotechnology, to assess synthetic biology work pursued in Indian labs, potential benefits and risks, and the implications of the trans-boundary movement of such life forms.

This technology could help produce drugs, vaccines, fuel components and other chemicals in the future.

Introduction

- ▶ Synthetic Biology is the application of science, technology and engineering to facilitate and

accelerate the design, manufacture and/or modification of genetic materials in living organisms. Unlike traditional genetic engineering, which typically involves the transfer of individual genes between cells, SB involves the assembly of new sequences of DNA and even entire genome.

- ▶ It goes far beyond the modification of existing cells by inserting or deleting small numbers of genes. Cells can be equipped with new functions and entire biological systems can be designed. Compared to traditional GMOs therefore, synthetic organisms involve much larger-scale interventions.
- ▶ SB provides tools to better understand biological systems and can also produce valuable products, such as drugs, fuels, or raw materials for industrial processes or food. By reducing the time, cost and complexity of developing these products, the field represents opportunities for a range of industries and has been linked to future economic growth and job creation. One report (McKinsey Global Institute, 2013) suggests that the field could be worth \$100 billion by 2025.

Application and Benefits:

Synthetic Biology is still an emerging field but there are growing numbers of applications in the pharmaceutical, chemical, agricultural and energy sectors.

- ▶ Commercial applications of SB tend to focus on creating microorganisms (such as *E. coli*, baker's yeast and microalgae) that can synthesize valuable products, such as fuels, food and pharmaceuticals. A notable example is the engineering of yeast cells that synthesize artemisinin, a drug used to treat malaria. Other medical applications of synthetic biology include

- engineering bacteria to attack cancer cells and designing new antibiotics.
- ▶ It is also possible to develop organisms that can process waste and purify water (and therefore restore damaged sites) by removing contaminants such as heavy metals and pesticides. E. coli able to degrade methyl mercury, a toxic metal that can accumulate up the food chain.
 - ▶ Biofuels produced by engineered organisms such as algae could be a more sustainable alternative to fossil fuels, as they can be farmed without using arable land. As photosynthetic organisms, algae also remove CO₂ from the air, reducing it into energy rich hydrocarbons
 - ▶ SB has for some time been hailed as a potent contributor to food security, by developing new crop varieties that are resistant to pests or that have enhanced nutritional value.
 - ▶ It reduce the impact of human land use on biodiversity, by, for example, reducing the need for pesticide use
 - ▶ Engineering biosynthetic pathways provides an alternative and cost-effective method of producing drugs of natural origin, such as morphine and aspirin.
 - ▶ It could be used to engineer solutions to other threats to biodiversity, including infectious diseases like white nose syndrome, a fungal disease that affects hibernating bats.
 - ▶ It is also possible to use SB for control of disease vectors. Using gene drive systems, it is possible to change the genomes of populations of mosquitoes to make them less dangerous.

India and the Synthetic Biology

- ▶ India is taking its first steps to evolve a policy on Synthetic Biology (SB), an emerging science through which new life forms can potentially be made in labs and existing life forms, such as bacteria and other microbes, tweaked to produce specific proteins or chemically useful products. The Environment Ministry will be convening a group of experts on biodiversity and biotechnology, to assess synthetic biology work pursued in Indian labs, potential benefits and risks, and the implications of the trans-boundary movement of such life forms.
- ▶ Synthetic biology in microbial systems holds promise for production of drugs, vaccines, fuel components and other chemicals. There are assorted labs in India that work on synthetic biology. Last December, Government officials participated in the United Nations Biodiversity Conference of the Convention on Biological Diversity (CBD) at Cancun, Mexico, where about 8,000 delegates from 180 countries discussed matters related to biodiversity.
- ▶ India, so far, has no policy on synthetic biology, and according to a presentation made at the venue, it has promised to “put in place a Synthetic Biology Team for articulating India’s view” at a forthcoming meeting.

Challenges:

Although synthetic biology may have benefits for society, there are many scientific uncertainties surrounding the development of synthetic life, cells and genomes, especially in terms of their impact on the environment.

- ▶ **Transfer of genetic materials:** The escape or release of novel organisms into the environment could radically and detrimentally change ecosystems. The transfer of genetic material to wild populations is a major risk. Genes could be transferred through horizontal or vertical gene transfer, which could lead to toxic effects on other organisms, spread of harmful characteristics and loss of genetic diversity.
- ▶ **Disrupt conservation projects and displace small-scale farmers:** while replacing natural products with synthetic ones could reduce pressure on natural habitats, it could also disrupt conservation projects and displace small-scale farmers. Saffron for example is usually picked from crocus flowers but, now, it can be synthetically produced by yeast. Each hectare of natural saffron growing (in Iran) provides jobs for around 270 people a day – replacing that with synthetic versions therefore threatens livelihoods.
- ▶ **Raises serious and complex issues of global justice:** A growing range of products (such as palm oil, rubber and Artemisinin) are beginning to be provided by synthetic biology, which may deprive farmers of their only source of income

and raises serious and complex issues of global justice.

- ▶ **Large-scale increase in the use of biomass:** Another major concern relates to the large-scale increase in the use of biomass. A large number of synthetic biology applications involve organisms that convert biomass into valuable products. Although use of feedstock could benefit the environment by representing a shift away from non-renewable resources, increased demand for biomass could also lead to increased extraction of biomass from agricultural land.
- ▶ **Soil Fertility and Structure:** Fuel production may require particularly large amounts of biomass, which could reduce soil fertility and

structure and contribute to biodiversity loss due to the conversion of natural land

- ▶ **Food and security challenges:** These land-use changes may also have adverse impacts on food and livelihood security. The increased production of biomass could reduce access to local natural resources and cause small, self sufficient farms to be replaced by large-scale commercial farming.
- ▶ **Temporary Solution:** Finally, there are deeper concerns that synthetic biology may act as a 'sticking plaster' rather than providing a profound solution to biodiversity loss. In other words, synthetic biology may distract policymakers, scientists and industry from the deeper underlying causes of biodiversity loss.

Phasing Out of FIPB

Context

Recently Finance minister during his Budget Speech has announced phasing out of FIPB. The Budget has given a clear indication of the government's intent to further liberalise policies related to foreign direct investment. This decision is logical as 90% of FDI comes through Automatic route and there are plans to further liberalize the FDI rules.

Background

There are two ways in which FDI could enter into India. They are Approval route and Automatic route.

The Foreign Investment Promotion Board (FIPB) offers a single window clearance for applications on Foreign Direct Investment (FDI) in India that are under the approval route. The sectors under automatic route do not require any prior approval from FIPB and are subject to only sectoral laws.

The Foreign Investment Promotion Board (FIPB), housed in the Department of Economic Affairs, Ministry of Finance, is an inter-ministerial body, responsible for **processing of FDI proposals** and **making recommendations for Government approval**. In the process of making recommendations, the FIPB provides significant inputs for FDI policy-making.

The FIPB was initially constituted under the Prime Minister's Office (PMO) in the wake of the economic liberalization drive of the early 1990s. The recommendations of the FIPB were approved through a 3-tier approval mechanism. The Board was reconstituted in 1996 with transfer of the FIPB to DIPP. The FIPB was transferred to the Department of Economic Affairs; Ministry of Finance in 2003.

The Minister of Finance who is in-charge of FIPB would consider the recommendations of FIPB on proposals with total foreign equity inflow of and below Rs. 3000 crore. The recommendations of FIPB on proposals with total foreign equity inflow of more than Rs. 3000 crore would be placed for consideration of Cabinet Committee on Economic Affairs (CCEA).

Why FIPB has been abolished?

Over the years, increasing liberalisation of the country's FDI regime has resulted in more and more FDI through the automatic route. The FIPB has lost its erstwhile pre-eminence and the discretionary power. Bureaucratic decision doesn't inspire much confidence within foreign investors and create negative Investor Sentiments. Decision to scrap this institution would show seriousness of present regime in creating enabling environment. This is in line with other reforms taken in recent past.

About 90 per cent of the FDI is coming through automatic route and only 10 per cent has to go through the Foreign Investment Promotion Board (FIPB). Further in most of the foreign investment proposals under the government approval route, an investor has to seek identical approvals.

With the abolition of the FIPB, the proposal can be cleared by the ministry concerned itself. Commenting on the move, which is likely to reduce M&A timelines.

Over the last two years, government has taken up a number of reforms to liberalise the FDI regime Under Make In India Program to make India a Industrial sector Powerhouse. The aim is to create jobs for Millions of Indians. Currently, 65% of Indians are below the age of 35 years. Some important reforms undertaken are; In November 2015, 15 sectors were liberalised for FDI. Then in June 2016, the government made sweeping amendments to the

FDI policy in seven sectors, most importantly in defence, civil aviation and pharmaceuticals.

Further, the government has taken other kinds of measures such as relaxing FDI norms for NRIs, PIOs and OCIs – allowing their non-repatriable investments to be treated on a par with domestic investments and not be subjected to FDI caps.

The liberalisation of FDI along with various other measures including those under the Make in India initiative has shown visible impact. Foreign Direct Investment (FDI) increased from ₹ 1,07,000 crores in the first half of last year to ₹ 1,45,000 crores in the first half of 2016-17. This marks an increase by 36%, despite 5% reduction in global FDI inflows. India has emerged as the sixth largest manufacturing country in world, up from ninth. We are seen as the growth engine of the world.

But there is a lot of potential and they need to grow further. The net FDI inflows as a proportion of GDP have shown a sharp rise, but it is still 1.7 per cent, compared to 2.8 per cent of China or 4.9 per cent in the case of Vietnam - the highest among major developing countries.

The decision to abolish FIPB and come up with a new roadmap can therefore be seen as part of the larger strategy of the government to boost FDI inflows.

This is a clear message to investors that India is the best bet for assured and rapid growth in an otherwise uncertain global scenario. In the climate of increasingly inward looking and protectionist tendencies across the world, the abolishing of FIPB and the statement of intent to further liberalise FDI policy sends out an encouraging signal.

Benefits

- ▶ Government has shown its clear intent towards fast-tracking inflow of FDI, and the scrapping of FIPB is a notable step that would go a long way in supporting the objective of ease of doing business.
- ▶ More than 90% of the total FDI inflows are now through the automatic route and government also intent to further liberalize FDI. So, approval route would be applicable in only to few cases. For such cases government will come out with a revised mechanism. The powers will be delegated to the regulators or to the individual ministries or department.

The decision could also be viewed in light of government aim to bring transformative Shift in the way country is governed. By moving from a discretionary administration to a policy and system based administration, from favouritism to transparency and objectivity in decision making.

National sex Offender Registry

Context

Amid growing crimes and offenses against women such as rape, voyeurism, stalking and aggravated sexual assault need is felt to set up a National Sex Offender Registry (NSOR) in the country on the lines of those maintained in western countries including United States, the United Kingdom, Australia, Canada etc.

Thus, hereby analyzing the feasibility of such registry and its implication on society.

According to National Crimes Records Bureau, sexual crimes such as rape have increased from 24,923 in 2012 to 36,735 in 2014 and in case of children; it has increased from 8,541 to 13,766 during the same period. Cases of assault on women with intent to outrage her identity have more than doubled from 40,613 in 2010 to 82,235 in 2014. Similarly, 11,335 cases were reported in 2014 of assault on girl children with intent to outrage their modesty and 444 cases were registered under the category of insulting the modesty of girl children during the same period.

On account of this, the central government has gone ahead with NSOR portal which is expected to function from March 2017. This will be an online database of charge-sheeted sexual offenders in the entire country, which people can access through a Citizen Portal in the upcoming Crime and Criminal Tracking Network and Systems (CCTNS) project.

Details of sexual offenders even below 18 years of age would be included in the database, which will be put up on the website of National Crime Records Bureau (NCRB). Extensive information on the offender will be collected and maintained in the data

base. This will include, inter-alia name and aliases, registration of primary or given name, nicknames, pseudonyms, telephone numbers, addresses including temporary lodging information, travel and immigration documents.

Besides, the information on offenders to be collected for the Registry include those related to their jobs, professional licenses, information of school, college, institute with which they have been associated, vehicle information, date of birth, criminal history, current photograph, fingerprints and palm prints, DNA sample, driver's license, identification card, PAN card number, Aadhaar card number and Voter ID number.

The government plans to publicize offenders' photographs, addresses, PAN card details, Aadhaar card number, fingerprints and DNA samples through this registry.

Pros

As a result of this, government is expecting a number of benefits that this registry will ensure.

- ▶ Registry will maintain the profile of criminals and offenders. Hence, it will help in identifying and tracking sex offenders
- ▶ It would be a handy tool for the law enforcement agencies as well. Nabbing the offenders will be relatively easy
- ▶ It will instill fear in the minds of repeat sexual offenders and the public would be benefited from it.
- ▶ Easy to surveillance and monitoring the sex convicts after their release
- ▶ People will have better information regarding their neighbors whom they are living with. This will ensure security and safety of people
- ▶ Naming and shaming will act as a deterrent for online tech savvy offenders

- ▶ This registry will allow citizens access to a nationwide list of people convicted in crimes relating to sex or child abuse.
- ▶ Sex offender registration laws and public access to these records create a sense of security to parents and residents

Cons

Contrary to this, rights groups are concerned that such a list might violate the rights of convicts. They argue that publicizing the even charge-sheeted offenders will move society towards extreme punitive action and branding. Similarly, the proposal to put juvenile on a sex offender register displays a complete lack of understanding of their rights under the Constitution and our international obligations under the UN Convention for the Rights of the Child (UNCRC).

Critics argue that such compulsory listing will prove to be counterproductive. It will alienate convicts from society. Once on the list, all possibility for a convict to improve and move on in life will be lost. It puts severe restrictions on where a previously convicted sex offender can reside and work. Since, the names of offenders will be available in a public domain it may affect their employability. The convict, who may have changed his behaviour after coming out of the jail, may have to face discrimination because of his past.

The offenders can be a subject of further harassment from enforcement agencies and others. Several studies find that because of open and free public access to these registries, former convicts often face threat, harassment and violence from other members of the community. Their status as former sex offenders has the effect of stigmatizing them for life, rendering reformation and a dignified life after prison impossible

Critics also argue that such registration have failed in making any significant difference in sex crimes. Even in the U.S., where stringent registration laws with public access have been around for over 30 years, several independent studies arrive at the same conclusion: that these registers are simply not reducing sex crimes. Further, Psychologists say sexual assaulters in India are not tech-savvy; so an online record will not really bother them, hence it will not prove to be a deterrent to the actual offenders.

More importantly, before proposing a sex offender registry it is significant to have a look at how our sexual offences have been framed. A brief look at the cases registered under POCSO Act tells us that most special courts are now barraged with romantic cases instigated through complaints filed by objecting parents. In the state of the current law, a person could possibly face the consequences of being on the register for a lifetime for having a consensual sexual relationship.

Conclusion

NSOR is surely a progressive step towards ensuring safety, security and dignity of life for women. However, it is important to consider that merely establishing registry will not prevent sexual offences. The efforts to

minimize the offence against women will equally require time bound delivery of justice in sexual offences cases in court, high rate of conviction and strong investigative and institutional machinery.

Leachate of Groundwater in Urban Areas

Context

Ground water contamination is nearly always the result of human activity. In areas where population density is high and human use of the land is intensive, ground water is especially vulnerable. Virtually any activity whereby chemicals or wastes may be released to the environment, either intentionally or accidentally, has the potential to pollute ground water.

The leachate of Groundwater in urban areas has become a major issues these days.

India's declining groundwater resources are the product of a number of drivers. Utilization of groundwater facilitates irrigated agriculture in areas far from rivers; in fact, this was key to the agricultural "green revolution" that occurred from the mid 1960s. In places where surface water is available but unsafe for drinking or farming—more than 70% of India's surface water resources are polluted by human waste or toxic chemicals—groundwater has often been seen as a safe alternative. Urban water supply infrastructure is often poor and unreliable: well drilling is typically the most economical means of obtaining household water. In Delhi, the local government estimates that 40% of the water transmitted through the mains system is lost through leakages; for many, the only other alternative to bores are expensive supplies purchased from water-trucks.

In rural areas, electricity subsidies allowing farmers to pump groundwater cheaply have become entrenched in the political landscape. They are likely to become even more so as energy requirements increase to extract water from greater depths. Low

cost encourages excess water withdrawal, an inefficient usage pattern commonly exacerbated by ineffective application methods and the wastage of agricultural produce between farm and market. In order to feed a growing and wealthier population, it is projected that agricultural water demand in the India of 2030 would need double to 1,200 billion m³ if these inefficient practices continued. the state of groundwater quality in India is a critical health issue.

Alongwith decline in groundwater resources, leachate of waste has become a major issue.

A leachate is any liquid that, in the course of passing through matter, extracts soluble or suspended solids, or any other component of the material through which it has passed.

How it is produced?

When water flows through improperly disposed waste and percolates to the ground, sometimes with toxic substances drawn from the waste it passes through. Water could be rain, or contained in the waste itself.

- ▶ Sometimes water is used in industrial plants, compost plants to remove impurities and then this water is allowed to drain.
- ▶ Dumping of the waste by industrial units without their proper scientific disposal. When rainfall occurs water dissolves many harmful compounds and percolates.
- ▶ Leachtaes from landfill sites also drains and contaminates other water bodies and groundwater.

The leachate then pollutes the water with these substances, making nearby water sources unusable for consumption. This is an acute problem in urban areas around the landfill sites, around drains and highly polluted rivers, where water percolates down and deteriorates the underground water quality.

Typical Sources of Potential Ground Water Contamination by Land Use Category

Category	Contaminant Source		
Agriculture	Animal burial areas	Irrigation sites	
	Animal Feedlots	Manure spreading areas/pits	
	Fertilizer storage/use	Pesticide storage/use	
Commercial	Airports	Jewelry/metal plating	
	Auto repair shops	Laundromats	
	Boats yards	medical institutions	
	Construction areas	Paint shops	
	Car washes	Photography establishments	
	Cemeteries	Railrod tracks and yards	
	Dry cleaners	Research laboratories	
	Gas stations	Scrap and junkyards	
	Golf courses	Storage tanks	
	Industrial	Asphalt plants	Petroleum production/storage
		Chemical manufacture/storage	Pipelines
Electronics manufacture		Septage lagoons and sludge sites	
Electroplaters		Storage tanks	
Foundries/metal fabricators		Toxic and hazardous spills	
Household lawns			
Other	Hazardous waste landfills	Recycling/reduction facilities	
	Municipal incinerators	Road deicing operations	
	Municipal landfills	Road maintenance depots	
	Municipal sawer lines	Storm water drains/basins	
	Open Buming sites	Transfer stations	

Affects of Water leachate

The water is used for consumption purpose and agriculture purpose, which if contaminated is very harmful for health.

Apart from health affects leachate degrades the land quality, its agriculture capacity, the wetland ecosystem and thus affecting the ecosystem services.

Health effects could be from an acute/short exposure, or long term chronic exposure to leachates from landfills.

Groundwater pollution of **Ranipet district by Tamil Nadu Chromates and Chemicals Limited (TCCL): In 1995, a chromium factory in Tamil Nadu's Vellore district shut shop leaving behind a legacy of contaminated soil and water:** Two decades after the factory was shut down, agriculture remains unviable and people continue to flock to hospitals

Chemical/metal Health effects from acute exposure

- ▶ Lead = Abdominal pain, diarrhoea, vomiting, confusion, drowsiness, seizures

- ▶ Mercury = bloody diarrhoea, dehydration, renal failure
- ▶ Cadmium compounds = metallic taste, cough, chest pain, nausea, diarrhoea, skin irritation
- ▶ Nickel = skin irritation, dermatitis, diarrhoea, gum disease
- ▶ Benzene = blood-related disorders

What should be done?

A range of steps must be taken to stop the leachate from contaminating the groundwater, which could be:

- ▶ Proper scientific disposal of the industrial effluents by the industries and treatment of their

waste. They should not be allowed to dispose off in open.

- ▶ Lining of the leachate tanks of the industries, so that water does not percolates.
- ▶ Proper lining of the landfills and measures to drain of leachates.
- ▶ Proper oversight of the landfill sides, industrial units for the handling of the waste by the pollution control boards. Involvement of the locals can be done in this.
- ▶ Awareness creation among residents to understand the harmful health affects, supply of safe drinking water
- ▶ Health check facilities so that whenever residents find any health issue immediate steps can be taken.

Companies Need to Look Beyond CSR

Context

Oxfam India in collaboration with Corporate Responsibility Watch, Praxis and Partners in Change launched 'India Responsible Business Forum' (IRBF) in 2015. IRBF launched an index (IRBI 2016), ranking the top 100 companies listed on the Bombay Stock Exchange on inclusive policies.

This index highlights that, while CSR rules of 2014 have had a positive impact on company ratings in IRBI 2016, they are no substitute for responsible business practices. Responsible business practices go beyond CSR and these practices should be enshrined by Corporate in order to ensure sustainable business. In order to demystify the debate we would look at CSR 2014, Responsible Business practices which are captured by IRIB 2016 and importance of Responsible business practices for long term sustainability of Business.

A robust and thriving development sector is central to India's quest for equitable, inclusive and sustainable growth. India's development sector has evolved substantially over the last few decades and is now witnessing unprecedented interest and investments across the value chain. With the passage of the Companies Act, 2014- which direct certain firms to spend 2% of their average profits on social development projects- the mandate for Corporate Social Responsibility (CSR) has been formally introduced to the dashboard of the Boards of Indian companies.

The industry has responded positively to the reform measure undertaken by the government with a wide interest across the public and private sector, Indian and multinational companies.

But India Responsible Business Index (IRBI), developed by collaboration of non-profit organizations Oxfam India, Corporate Responsibility Watch, Praxis and Partners in Change- shows that the number of companies looking at backward regions and communities to conduct CSR activities has risen from 25 in 2015 to 32 in 2016 and that of companies identifying vulnerable communities to work with has increased from 71 in 2015 to 85 in 2016.

While Corporate Social Responsibility (CSR) rules of 2014 have had a positive impact on company ratings in IRBI 2016, they are no substitute for responsible business practices. Experts say that responsible business has to be part of the business process right from the point of procuring raw materials, acquiring land, setting up manufacturing or business operations to mitigating any adverse impact that such a process might have on society and environment.

Corporate social responsibility (CSR) rules 2014

With effect from April 1, 2014, every company, private limited or public limited, which either has a net worth of Rs 500 crore or a turnover of Rs 1,000 crore or net profit of Rs 5 crore, needs to spend at least 2% of its average net profit for the immediately preceding three financial years on corporate social responsibility activities.

The activities that can be undertaken by a company to fulfil its CSR obligations include eradicating hunger, poverty and malnutrition, promoting preventive healthcare, promoting education and

promoting gender equality, setting up homes for women, orphans and the senior citizens, measures for reducing inequalities faced by socially and economically backward groups, ensuring environmental sustainability and ecological balance, animal welfare, protection of national heritage and art and culture, measures for the benefit of armed forces veterans, war widows and their dependents, training to promote rural, nationally recognized, Paralympic or Olympic sports, contribution to the Prime Minister's National Relief Fund or any other fund set up by the Central Government for socio economic development and relief and welfare of SC, ST, OBCs, minorities and women, contributions or funds provided to technology incubators located within academic institutions approved by the Central Government and rural development projects.

Responsible business practices

A responsible business ensure not merely spending a small amount of profit on CSR projects and meeting compliances but it is about maximising the well-being of all its stakeholders. Any business or industry is made up of various stakeholders—shareholders, consumers, suppliers and communities directly or indirectly affected by pollution etc. Business leaders need to go beyond minimum towards maximising the positive impact on all stakeholders. CSR is just a subset of Responsible business practise.

IRBI 2016 - has been launched to gauge the extent of engagement that Indian companies have with the stakeholders around them, non-profit organizations Oxfam India, Corporate Responsibility Watch, Praxis and Partners in Change collaborated on an index. The India Responsible Business Index measures 100 listed companies on five criteria to see how socially inclusive they are. These criteria are

- ▶ inclusive supply chain,
- ▶ community as stakeholders,
- ▶ community development,
- ▶ employee dignity and human rights, and
- ▶ non-discrimination at the workplace

As it is visible from constituents of IRBI Index, CSR component only have impact on community development. CSR has very few linkages with other four aspects of index. This means companies have to move beyond CSR.

Why Responsible business practices important?

Responsible business practices result in better financial performance and deliver superior returns in the long run.

Adoption of best practices in non-financial aspects of business is increasingly becoming as important as it is in the financial aspects.

Investors are keen that firms mitigate social and environmental damage to avoid financial strain and ensure best practices in environment, social and governance (ESG) aspects along with financial performance.

Responsible business practices mean better loan prospects. For ex - SBI Mutual Fund has evolved an internal rating system for companies when considering them for loans. This rating reviews the environmental and social impact of the business that is seeking a loan.

A substantial part of the market value of a company is intangible—this includes reputation and goodwill among other things. And to protect these, any business needs to adopt responsible practices.

An increasing number of home-grown firms are thus looking to internalize processes to address these external impacts that their businesses may have. Responsible business is risk mitigation and ensures longevity.

National voluntary guidelines on **Social, Environment and Economic Responsibilities of Business** drafted by the Ministry of Corporate Affairs in 2012 mentioned nine principles of responsible business practices-

- ▶ Businesses should conduct and govern themselves with ethics, transparency and accountability.
- ▶ Businesses should provide goods and services that are safe and contribute to sustainability throughout their life cycle.
- ▶ Businesses should promote the wellbeing of all employees.
- ▶ Businesses should respect the interests of, and be responsive towards all stakeholders, especially those who are disadvantaged, 30 vulnerable and marginalized.

- ▶ Businesses should respect and promote human rights.
- ▶ Business should respect, protect, and make efforts to restore the environment.
- ▶ Businesses, when engaged in influencing public and regulatory policy, should do so in a responsible manner.
- ▶ Businesses should support inclusive growth and equitable development.
- ▶ Businesses should engage with and provide value to their customers and consumers in a responsible manner.

From the above nine principles and Schedule VII of the Companies Act, 2013 it can be stated that while community remains the focal point in CSR, however, companies need to look beyond the CSR and philanthropy. It needs to look beyond the definition of CSR as- a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders (UNIDO). It is important to understand that-

- ▶ The CSR approach is holistic and integrated with the core business strategy for addressing social and environmental impacts of businesses.
- ▶ CSR needs to address the well-being of all stakeholders and not just the company's shareholders.
- ▶ Philanthropic activities are only a part of CSR, which otherwise constitutes a much larger set of activities entailing strategic business benefits.

Taking a cue from this broader perspective, **CSR means the willingness by companies to take responsibility and be accountable.** Considering that the ISO 26000 draws guidance and complements relevant declarations and conventions by international bodies such as the ILO, UN Global Compact and Organisation for Economic Cooperation and Development, it is important for companies, both public and private, to **be mindful of basic principles such as respect for human rights, Labor rights, environmental protection, community engagement and governance reforms.**

Companies should **support and respect the protection of international human rights** and ensure that business is not complicit with human rights abuses. Similarly, they should **respect labour rights of Individuals.** They should uphold freedom of association and effective recognition of the right to collective bargaining, elimination of all forms of forced and compulsory labour, effective abolition of child labour and elimination of description in respect of employment and occupation.

That companies should take **responsibility in conservation of the environment** in which they operate is a matter that needs no elaboration. Environmental stewardship means a company is concerned about the direct and indirect impact of the activities on living and non-living natural systems, including ecosystems, land, air, biodiversity and water.

It is sad that companies continue to engage in community initiatives geared towards environmental conservation externally while ignoring internal initiatives geared towards ensuring the environment is not affected by their activities. While mitigating climate change should be a part of the company's strategic goals, this has not been the case for many companies. The practice should be that companies use resources in a sustainable manner.

Other areas of focus for corporate responsibility should be the market place in terms of **upholding integrity and standards, product quality, reliability, safety and good customer relations.** In the supply chain, this is through doing business with suppliers, who have shared values and business standards. For example, companies should desist from buying raw materials from suppliers who are using child labour or abusing human rights. Community development should be through supporting education, community health, sponsorships and donations.

Companies should have a continued **commitment to behave ethically and contribute to economic development** while improving the quality of life of the workforce as well as of the local community and society at large, failure to which they risk losing business opportunities.

Lancet Report on Healthcare Spending

Context

UK medical journal The Lancet — in a recent analysis of India's annual budget — has questioned low public expenditure on health. High public investment in health care is one of the most efficient ways of delivering healthcare, and for this reason, this commitment to higher public expenditures is essential.

In this context, we would first look at the highlights of the report. Then we would look at public expenditure on health by government and its impact. Finally we would look at some of the required responses to the current situation.

Health is a state of complete physical, mental and social well-being and not merely absence of disease. But the recent 'The Lancet' Report highlighted low public expenditure on health.

Highlights from the Report

- ▶ In India, the challenge is that health has a low status as a popular demand. This has meant that the discussion on universal health coverage (UHC) has remained almost entirely confined to academic and policy circles.
- ▶ It also said that between 2005 and 2013, India had spent the entire fund allocated to health only once.
- ▶ India's per capita spending on healthcare remains one of the lowest in the world, and in some health indicators, India trails behind SAARC countries like Nepal, Sri Lanka, and Bangladesh.
- ▶ According to the report, India spends less because health is not a populist issue. If health

becomes a populist cause in India, the country might finally be able to achieve health outcomes commensurate with its economic and technical achievements.

- ▶ India vastly underperforms in terms of quality clinical research. Only 1-5 per cent of global clinical trials are done in India; and between 2005–14, fewer than half the medical colleges in the country published a single research article."
- ▶ India has 17 per cent of the world's population, and has more deaths of children aged five and under — close to 12.5 lakh every year — the highest in the world. Also one third of all world's cases for diseases such as tuberculosis, premature cardiovascular diseases and diabetes originate from India.

India's current Health Expenditure

The country's public spending on health is "little over" 1 per cent of GDP.

Public spending on health was an unusually low 0.22 per cent of the GDP in 1950-51.

This has risen to a little over 1 per cent today, but well below the world average of 5.99 per cent.

According to World bank Data, India's public expenditure is among the lowest within SAARC

Public expenditure on health as a % of GDP in 2014

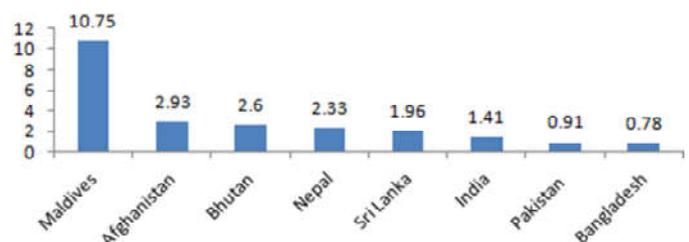


Fig. 6

countries. Even war torn Afghanistan spends more than India on health.

The Economic Survey said that a distinctive feature of the Indian economic model is the “weakness” of state capacity, especially in delivering essential services such as health and education.

A low expenditure by state leads to high out-of-pocket expenditure. A large proportion of the population is impoverished because of high out-of-pocket healthcare expenditures and suffers the adverse consequences of poor quality of care. The data on health by the NSSO, ‘Key Indicators of social consumption in India: Health’, 2015, 71st Round (January–June 2014) shows that private sector continues to play a significant role in the provision of outpatient and hospitalized care. The average total medical and other related nonmedical expenditure per hospitalization in rural and urban areas are Rs. 16,956 and Rs. 26,455 respectively. These expenditures reflect the challenges that India faces in the provision of affordable and accessible health care to the population.

Required Response

With limited resources and competing demands in the health sector, it is essential for Government to prioritize expenditure. Preventive health care has always been a priority area because of its long-term societal benefits. Preventive healthcare includes immunization, proper nutrition during initial years of birth etc.

Government has therefore prepared an action plan to eliminate Kala-Azar and Filariasis by 2017,

Leprosy by 2018 and Measles by 2020. Elimination of tuberculosis by 2025 is also targeted. Similarly, action plan has been prepared to reduce IMR from 39 in 2014 to 28 by 2019 and MMR from 167 in 2011-13 to 100 by 2018-2020.

A full achievement of the goals and principles of equitable, affordable and accessible healthcare would require an increased public health expenditure to 4 to 5% of the GDP.

With the projection of a promising economic growth, the fiscal capacity to provide this level of financing should become available. The Government would explore the creation of a health cess on the lines of the education cess for raising the necessary resources. Other than general taxation, this cess could mobilise contributions from specific commodity taxes- such as the taxes on tobacco, and alcohol, from specific industries and innovative forms of resource mobilization. Extractive industries and development projects that result in displacement, or those that have negative impacts on natural habitats or the resource base can be considered for special taxation thereby allowing investment and job opportunities in education and health for affected communities.

Corporate social responsibility has now been made mandatory- and this avenue should be maximally leveraged. Though actual CSR flows to health care may be modest in comparison to needs, these could be leveraged for well-focused programmes, communities or geographies with special levels of vulnerability which require special attention.

Conclusion

The aim of good health and well-being for all as envisaged in the Sustainable Development Goal (SDG), “Ensure healthy lives and promote well being for all at all ages”. Achieving this goal require adequate public expenditure in healthcare sector. Expenditure on healthcare has been low because it has not been a populist issue. Better economic performance, GST and gains from demonetisation

and digitisation would mean increase in revenues of government. A relatively high portion of such gains should be invested in healthcare (especially primary healthcare). At the same time focus should be on preventive healthcare to reduce healthcare burden. Finally CSR funds should be channelized to complement public expenditure in healthcare.

Nagaland Issue

Context

The recent eruption of violence to subvert the implementation of a 33 percent quota for women in Nagaland's urban civic bodies has put paid to the often-circulated myth about the state's gender sensitive credentials.

United under the Joint Coordination Committee (JCC), a host of Naga tribal bodies have unleashed a violent agitation to oppose elections to the state's urban local bodies.

All-male tribal bodies have been against the 33% reservation for women in urban local bodies (ULBs) in Nagaland right from the time the Nagaland government enacted the Nagaland Municipal (First Amendment) Act in 2006, on the grounds that reservation for women in ULBs would violate Article 371(A) of the Constitution and infringe on Naga culture, traditions and customary laws.

It's a conflict between Naga customary laws and the constitutional provisions.

Article 371(A) of the Indian Constitution (Special provision with respect to the State of Nagaland) states, "Notwithstanding anything in this Constitution, (a) no Act of Parliament in respect of (i) religious or social practices of the Nagas, (ii) Naga customary law and procedure, (iii) administration of civil and criminal justice involving decisions according to Naga customary law, (iv) ownership and transfer of land and its resources,

shall apply to the State of Nagaland unless the Legislative Assembly of Nagaland by a resolution so decides."

While tribal bodies have always taken resort to Article 317(A) in respect to various socio-economic issues, civic elections in the state have not been held since Article 243(T) of the Constitution, which provides for 33 per cent reservation for women in local bodies, came into force in 1993.

All-male tribal bodies have been against the 33% reservation for women in urban local bodies (ULBs) on the grounds that reservation for women in ULBs would violate Article 371(A) of the Constitution and infringe on Naga culture, traditions and customary laws. Faced with vehement opposition, the Nagaland government did not conduct elections to civic bodies for over 10 years.

Background

- ▶ Naga Mothers' Association (NMA) filed a writ petition challenging the State government's refusal to hold municipal elections before the Gauhati High Court on June 26, 2011.
- ▶ The court directed the government to hold elections to municipal councils and town councils on or before January 20, 2012.
- ▶ But before the deadline, the state government filed an appeal before a Division Bench of the Gauhati High Court, which stayed the previous ruling.
- ▶ In September 2012, the State Assembly adopted a resolution rejecting women's reservation in ULBs on the ground that it infringes on the social and customary practices of the Nagas, which Article 371(A) safeguards and claim that implementing such a law would '**upset the peace**' in Nagaland.

- ▶ The Joint Action Committee on Women Reservation (JACWR) then moved a Special Leave Petition in the Supreme Court in September 2012.
- ▶ The Supreme Court ruled in the favour of the Naga Mothers' Association (NMA) in April 2016, following which the state cabinet gave a go-ahead to conduct the polls, which had not taken place in Nagaland for well past a decade and a half.

Counter Arguments

- ▶ Article 371(A) of the Constitution secures a special status for Nagaland. It gives special status to the State based on distinct political and cultural structure.
- ▶ However, urban local bodies are not part of traditional Naga society, argued by the civil society groups who are striving for reservation and ULBs are constitutional bodies to which customary Naga laws cannot be applied.
- ▶ Women's reservation is necessitated in patriarchal societies for reasons of inequality that is present in society. Women do not have political space in Nagaland which reduces their empowerment.

Threats:

- ▶ The tribal bodies protested and threatened candidates who intended to file nominations. As a result, some candidates didn't file nominations and some others withdrew their papers.
- ▶ Through all this, the State government remained a silent spectator and failed to assert the rule of law.
- ▶ When the State government refused to call off the elections, the tribal bodies announced a bandh from January 28 to February 1.
- ▶ Things soon took an ugly turn, and the Nagaland government declared the elections '**null and void**'.

Women representation: Reality

- ▶ The state has sent a sole woman representative—late Rano M. Shaiza in 1977—to Parliament.

- ▶ No woman has ever been elected to the state assembly in over 53 years of Nagaland's existence as a state.
- ▶ The village development boards in the state, on the other hand, do have 25% seats reserved for women.
- ▶ Most of the tribal bodies which act as the custodians of tribal culture and traditions are dominated by men.
- ▶ As a result, the property and inheritance rights are highly skewed against women.
- ▶ This is also a system developed over the years to keep property from being taken outside the community in the eventuality of a woman deciding to marry outside the tribe.

Unconstitutional demand

- ▶ Nagaland government has decided to write to the Centre demanding that Nagaland be exempted from Part IX A of the Constitution, which contains a mandatory provision under Article 243T for 33% women reservation in ULBs.
- ▶ If Nagaland is exempted from the purview of Part IX of the Constitution, Naga women will have absolutely no hope of entering into and participating in decision-making bodies.

74th Amendment:

- ▶ 74th Constitutional Amendment Act, 1992 is aimed to strengthen the ULBs through devolution of power towards decentralization.
- ▶ The aim and objectives of 74th constitutional amendment is:
 - To set up institutional mechanism to facilitate decentralization.
 - Demarcate role of ULBs & specify their function.
 - Specify areas deemed as urban to include new urbanizing areas.
 - Ensure representation of specially deprived class/woman.

Conclusion

The reservation for the women should not be seen as a charitable grant to a weaker section, but rather an impetus and a step toward creating a level-playing field in policy and decision making.

Reservation for women is necessary in patriarchal societies like Naga society, for instance, where there is a historical culture of inequalities even though Nagas don't practise sati, female foeticide and infanticide, and do not believe in dowry or the caste system. But Naga customs, culture and

traditions preclude women from inheriting land and participating in the decision-making process, which is exactly what Article 371(A) protects.

Undeniably, the constitutionally guaranteed rights of Naga women now depend on the Centre, as much as on the gender sensitised public of India.

A drive towards genuine egalitarian society can be achieved only when all sections of the society are genuinely empowered equally to participate and exist cohesively within its ambit.

Forest Fires as Part of Ecosystem

Context

The National Forest Policy 1988 aims for 33% of the country's geographical area under the forest cover for ecological and environmental security. While aiming to expand the forest cover in the country, it is equally important to improve the state and quality of existing forests and protect them against various threats and drivers of degradation. Forest fires are a major cause of degradation of India's forests.

Thus hereby analyzing the concept of forest fire, reasons and its impact.

A Forest fire is a fire in an area of combustible vegetation that occurs in the countryside or rural area.

Frequency of forest fires have drastically increased in last few years partly because of environmental factors especially climate change and other man made intentional activities. The change in climatic conditions such as rising temperature, wind speed and direction, level of moisture in soil and atmosphere and duration of dry spells cause wildfires. Other natural causes are the friction of bamboos swaying due to high wind velocity, lightning strike, global warming and rising instances of EL-Nino. These all factors have cumulative effect on rising temperature, change in precipitation patterns and air moisture, increasing heat waves, and drier soil etc. On the other hand Man-made factors include small fires by grazers and gatherers, shifting cultivation, tourist bonfire, and timber mafia.

Properties of Forest Fire

Wildfires occur when all of the necessary elements of a fire triangle come together in a susceptible area.

- ▶ That is when an ignition source is brought into contact with a combustible material such as vegetation that is subjected to sufficient heat and has an adequate supply of oxygen from the ambient air.
- ▶ A high moisture content usually prevents ignition and slows propagation, because higher temperatures are required to evaporate any water within the material and heat the material to its fire point.
- ▶ Dense forests usually provide more shade, resulting in lower ambient temperatures and greater humidity, and are therefore less susceptible to wildfires.
- ▶ Less dense material such as grasses and leaves are easier to ignite because they contain less water than denser material such as branches and trunks.
- ▶ Plants continuously lose water by evapotranspiration, but water loss is usually balanced by water absorbed from the soil, humidity, or rain.

When this balance is not maintained, plants dry out and are therefore more flammable, often a consequence of droughts.

Impact

It is estimated that the proportion of forest areas prone to forest fires in India annually ranges from 33% in some states to over 90% in others. About 90% of the forest fires are started by humans. Forest Fires cause wide ranging adverse ecological, economic and social impacts.

In a nutshell, fires cause

- ▶ Loss of valuable timber resources and depletion of carbon sinks.
- ▶ Degradation of water catchment areas resulting in loss of water.

- ▶ Loss of biodiversity and extinction of plants and animals.
- ▶ Loss of wild life habitat and depletion of wild life.
- ▶ Loss of natural regeneration and reduction in forest cover and production.
- ▶ Loss of carbon sinks resource and increase in percentage of CO₂ in the atmosphere.
- ▶ Change in micro climate of the area making it unhealthy living conditions.
- ▶ Soil erosion affecting productivity of soils and production.
- ▶ Ozone layer depletion.
- ▶ Health problems leading to diseases.
- ▶ Indirect affect on agricultural production: Loss of livelihood for the tribals as approximately 65 million people is classified as tribals who directly depend upon collection of non-timber forest products from the forest areas for their livelihood.

Whereas if forest fire is natural and controllable then it plays many important roles in ecosystem.

- ▶ Many types of forests have evolved to utilize fire disturbances to maintain ecosystem health and to regenerate. For example, many tree species actually require fire to germinate their seeds, and forest fires return important nutrients to the forest soil that was previously being stored in biomass.
- ▶ Wildfires help to clear out dead wood and other materials that would otherwise have taken much longer to break down and provide soil nutrition for the next generation of trees and plants living in that forest. This process helps to keep a forest ecosystem healthy.
- ▶ Burned forests serve as important habitat for many species, such as the Black-backed Woodpecker, *Picoides arcticus*, that is specialized to live and thrive in forests that have experienced severe burning.
- ▶ After a forest fire occurs, a process called *ecological succession* takes place, where the ecosystem goes through a series of changes and eventually develops into a mature forest again. At each stage of succession, the changing forest provides habitat for many types of species, including plants, animals, and birds.

Historically, when fires from natural or other causes began, efforts were made to control them as quickly

as possible. Ministry of Environment and Forest implemented a plan scheme "**Modern Forest Fire Control Methods**" in India under which practices like creation and maintenance of fire lines, fire tracks, control burning, and engaging fire watchers during the fire seasons etc. were encouraged.

However, with current understanding of forest fires as a natural and healthy part of forest ecosystem ecology, forest management efforts typically are now focusing on a combination of containment where necessary to protect human communities, as well as periodic fires for the sustainability and health of forest ecosystems. In view of this, it is felt necessary to try the new technologies of forest fire prevention and control.

Forest Fires in India

A report titled Forest Fire Disaster Management, prepared by the National Institute of Disaster Management, a body under the Ministry of Home Affairs, in 2012, said about half of India's forests were prone to fires.

43% were prone to occasional fires and 5% to frequent fires, and 1% were at high or very high risk, the report said, quoting data from Forest Survey of India's State Forest Report, 1995, a compilation of 25 years of observations and analyses.

The fire season usually begins from mid-February and lasts until mid-June, when the rains arrive.

March-May is the peak fire season for most states in India.

This year (2016), the fires started early — the first incident was reported on February 2.

In Himachal, the first fire was reported on April 7.

Their frequency and intensity increased after April 25, the day the state saw 80 incidents of fire.

More than 95% of wildfires in India were man-made. [FSI Report]

- ▶ Villagers reportedly burn leaves and grass in order to get better growth of grass the following year.
- ▶ They also burn the needles of the Chir pine, which form a slippery carpet on the ground.
- ▶ In the Terai region, honey collectors often start fires to drive away bees.

Steps Adopted by Forest Department

The government has banned people from carrying matchboxes to forests, and is running awareness campaigns as 95 percent of forest fire is manmade.

Many have argued for more modern systems of fire monitoring alongside traditional methods like maintaining fire lines, so there is a clearing between two forests to prevent the fire from spreading from one to the other.

The third method of “counter fire” too is being adopted — with forest officials starting fires from the opposite end of a forest to check the flames at a defined boundary.

However, critics say the measures are too late and too little.

Recent scientific steps

- ▶ **Better fire shelter:** The newest generation of fire shelters are started to be used by The U.S. Forest Service (USFS) since 2003. This latest version consists of an outside layer made of high-temperature resistant silica cloth and an inside layer composed of a lightweight, fiberglass scrim cloth. Both layers are laminated to aluminum foil, which is an excellent reflector of radiant heat. The aluminum foil is “designed to slow heat transfer from the outside to the inside of the shelter.
- ▶ **Improved wind models:** The most dangerous types of wildfires often occur during what scientists call extreme fire weather, when conditions are hot, dry, and windy. To better combat these kinds of fires, researchers are developing computer models to simulate how wind moves across the landscape. With the help of this modeling software and taking into account the weather, landscape and fuel conditions, scientists can now predict wind motion on ever smaller scales. The model helps in providing a snapshots of the fire’s potential and thereby help in channeling and blocking the wind speed and direction thereby restricting the progress of forest fires.

- ▶ **Surveillance through drones:** Drones can play a big role in wildfire suppression in the future. One of the most effective time to fight a fire is at night, when the winds are down and containing fire during that time is slightly easy. Unmanned vehicles could be especially useful for fighting fires. It can also be effective instruments for doing aerial surveillance and monitoring of the forest fires areas especially in night. Drones equipped with thermal cameras could do the job better and more safely than airplanes and helicopters. However, one limiting factor is that such drones are expensive.

Further, In contrast to a manned airplane, the remotely piloted aircraft doesn’t risk the life of the pilot, and can fly over the fire for much longer. Firefighters are using information gathered by the drone to guide the allocation of firefighting resources on the ground to where they are most needed. The aerial view also reveals the location of critical infrastructure such as power lines, gas lines and water systems in the fire’s path.

- ▶ **Use of satellite images:** To better understand when and where wildfires occur, researchers comb through satellite imagery. These satellite data helps in determining the best techniques for preventing wildfires. This information helps in understanding forest thinning and prescribed burns — both of which aim to eliminate fire fuel before the fire occurs, which is described as best methods to control forest fire.
- ▶ **Firing out:** Firing out is a technique when firefighters create a controlled burn to direct the fire’s spread. In this technique a fire is created between the wildfire and a natural barrier, such as a road, to remove any vegetation in the wildfire’s path.
- ▶ **Spraying of flame retardant chemicals:** Helicopters fly over and dump water or sometimes suppressant foam on fire hotspots. The foam acts as insulation to prevent unburned fuels from catching fire. Fixed wing aircraft called air tankers fly over the blaze dumping flame retardant chemicals, such as ammonium phosphate.

Conclusion

Community based approach should also be initiated. State governments should Involve their community-led ‘van panchayats’ (forest councils) in preventing fires.

It should provide environmental education to local residents and officials.

Finally, the imperative is to stop the havoc wrought by man-made fires, and compensate those affected.

US Sanction on Iran

Context

In 2015 the Obama administration led successful negotiations for a nuclear deal intended to dismantle Iran's nuclear weapons capabilities, and when Iran complied with it in 2016, sanctions on Iran were lifted. The U.N. Security Council resolution that endorsed the 2015 deal, called on Iran to refrain from testing ballistic missiles that could carry nuclear warheads.

But recently, Iran tested a missile that the USA says defied the UN resolution. In response to that USA's Trump Administration has announced new sanctions against Iran.

Later, the Iranian Revolutionary Guard carried out extensive military exercises in the Iran, calling the manoeuvres a response to US President Trump's sanctions. Iran's supreme leader, Ayatollah Ali Khamenei, had called on Iranians to use the anniversary of the revolution, which overthrew the U.S. backed shah in 1979, as an opportunity to "respond" to the Trump administration's forceful rhetoric. This year's gathering paid notice to the deep U.S. political divides over Trump's executive order to bar entry from seven Muslim-majority countries, including Iran. The demonstrations were a message to the US that Iran will not bow to any threats or Sanctions from the west.

In this context, the history of sanctions against Iran and reasons for them has been analysed. Though sanctions which have

been recently imposed are not severe, but if the tension escalates further it can have implications globally.

Introduction

The current friction between the US and Iran is in contrast to the easing of tensions that took place under the Obama administration. In 2015 the Obama administration led successful negotiations for a nuclear deal intended to dismantle Iran's nuclear weapons capabilities, and when Iran complied with it in 2016, sanctions on Iran were lifted. The U.N. Security Council resolution that endorsed the 2015 deal, called on Iran to refrain from testing ballistic missiles that could carry nuclear warheads.

Why was it in the news recently?

Recently, Iran has test-fired a medium-range missile, which the US contends violated a UN Security Council resolution proscribing missiles that could carry a nuclear device. Tehran has confirmed it tested a ballistic missile, but denied it was a breach of a 2015 nuclear deal with world powers or UN resolutions. The current sanctions are against 13 individuals and 12 entities that are linked to Tehran's ballistic missile program and its proxies across the Middle East.

Those individuals and companies sanctioned are prohibited from doing any business in the United States or with American citizens. Foreign companies that do business with the targeted individuals and companies risk being blacklisted by the United States.

History of Sanction since 1979

- Following the Iranian Revolution of 1979, Iran and USA share no formal diplomatic relations.

The two nations instead of exchanging ambassadors, maintains an interests sections. Iran maintains an interest sections at the Pakistani Embassy in Washington, D.C. while the USA has maintained a corresponding interests section at the Swiss Embassy in Tehransince 1980s.

- ▶ Since 1979 the US imposed economic sanctions against Iran and expanded them in 1995 to include firms dealing with the Iranian government. In 2006, the UN Security Council passed Resolution and imposed sanctions after Iran refused to suspend its uranium enrichment program. U.S. sanctions initially targeted investments in oil, gas, and petrochemicals, exports of refined petroleum products, banking and insurance transactions (including with the Central Bank of Iran), shipping.
- ▶ Over the years, sanctions have taken a serious toll on Iran's economy and people. Since 1979, the United States has led international efforts to use sanctions to influence Iran's policies, including Iran's uranium enrichment program, which Western governments fear is intended for developing the capability to produce nuclear weapons.
- ▶ Sanctions have reduced Iran's access to products needed for the oil and energy sectors, have prompted many oil companies to withdraw from Iran, and have also caused a decline in oil production due to reduced access to technologies needed to improve their efficiency. Consequently, crude oil prices have risen up due to restricted supply.

The Iran Nuclear Deal 2015

In, 2015, the P5+1 and Iran, meeting in Lausanne, Switzerland, reached a historic accord to limit Tehran's nuclear ability in return for lifting international oil and financial sanctions. *Key Highlights of the Deal are*

- ▶ The talks were aimed at curbing Iran's ability to use Uranium and Plutonium elements in weapons.
- ▶ **Curbing the Uranium Path** - Iran has agreed to transform its deeply buried plant at Fordo into a centre for science research. Iran has also agreed to limit enrichment to 3.7 percent and to cap its stockpile of low-enriched uranium at 300 kilograms for 15 years.

- ▶ **Curbing the Plutonium Path** - Iran was constructing a nuclear reactor at Arak that would have used natural uranium to produce Pu-239, which can fuel bombs. The agreement Iran has agreed to redesign and rebuild the Arak reactor so it will not produce weapons-grade plutonium. Iran also agreed will not build any additional heavy water reactors for 15 years.
- ▶ **Ensuring That Iran Won't Cheat** - Iran poses many challenges for atomic inspectors who have to police the agreement and gain access not only to scientists, labs and factories, but also to many underground sites and military bases. The principal concerns were how to detect the covert sites. The Iran has agreed to provide the International Atomic Energy Agency greater access and information regarding its nuclear program, and to allow the agency to investigate suspicious sites or allegations of covert facilities related to uranium enrichment anywhere in the country.
- ▶ **Timeline of the Agreement** - The deal requires Iran to reduce its current stockpile of low-enriched uranium by 98 percent, and limits Iran's enrichment capacity and research and development for 15 years. Some inspections and transparency measures will remain in place for as long as 25 years.

Recent Sanction on Iran

Just after US President Donald Trump assumed the office, he passed an executive order temporarily barring travel to the US for Iranian citizens, as well as citizens of six other majority-Muslim countries. Later on, Donald Trump's administration has imposed sanctions on Iran following its recent ballistic missile test.

The sanctions target 13 people and 12 companies, including groups in China, Lebanon and the UAE. US claimed that Iran's continued support for terrorism and development of its ballistic missile programme poses a threat to the region, to its partners worldwide and to the United States. Iran's continued support for terrorism is a reference to Iranian support for Shia militias and involvement in countries such as Syria, Iraq and Yemen. Among the newly sanctioned groups are members of the Islamic Republic's Revolutionary Guards Corps. US

observe that Iran's belligerent conduct had increased since the "very favourable" nuclear deal that six world powers struck two years ago with Iran to halt its nuclear programme.

Impact of Sanctions and Global Reactions

- ▶ Iran claimed that it was the US sanctions that breached the UN resolution, which endorsed the 2015 nuclear deal.
- ▶ The Iranian said it would impose legal restrictions on a number of American individuals and companies which have been involved in creating and supporting extremist terrorist groups or are helping in the killing and oppression of defenceless people in the region
- ▶ Also, Iran announced a ban against US wrestlers from competing at a championship in the western Iranian city of Kermanshah.
- Saudi Arabia supported the view that it's time to change Iran's behaviour in the region as the Iran's involvement in neighbouring countries such as Iraq, Syria and Yemen must be stopped.

Impact of Sanctions on India-Iran Relations

These sanctions are not severe and do not violate the spirit of agreement reached between P5+1 and

Iran in 2015. However, situation could get worse due to adverse regime in US. Some of the effects in such situation could be:

- ▶ India cannot freely buy crude-oil from Iran. This along with the fact that crude oil prices would rise up due to restricted supply from OPEC cartel would worsen the Current account deficit problem.
- ▶ Last Year India and Iran signed an agreement for a \$150 million line of credit, from the Exim Bank, for the development of the Chahbahar port. This development project could be derailed.
- ▶ A memorandums of understanding was also signed on provision of services by Indian Railways, including financing to the tune of \$1.6 billion, for the - Chahbahar-Zahedan railway line — a line that is also part of the trilateral agreement between India, Iran and Afghanistan on a transit and trade corridor. This project would also get hampered and Link between India and Afghanistan via. Iran may not be realized.
- ▶ Oil and Natural Gas Corp (ONGC), discovered the Farzad-B gas field in the Farsi offshore block in 2008, but was unable to get permission to develop it due to Western sanctions against Iran. A considerable progress has been made on this but western sanctions could affect these developments.

Conclusion

They are the first Iran sanctions of Mr Trump's new presidency. There may still be echoes of Obama's policies today, but the whole framework of the approach has changed now. Analysts say the impact

of the sanctions is largely symbolic and will likely not have a large effect on Iran's economy. But, a new regime in USA with the 'America First' policy could nullify the gained grounds during 2015 deal.

Sub-Prime Crisis in the Making

Context

The share of debt of firms with failing financial health has been going up every year since 2011, leading to mounting NPAs. In the recent times, the Indian corporate sector is grappling with a severe bad debt crisis, and as a result, the banks (public sector banks) are increasingly getting saddled with Non-Performing Assets.

Calling it India's sub-prime crisis might be an exaggeration but in the future it's very likely. Moreover in conditions such as these, with the global economic crisis in the background, it's better to be cautious right now. This might also help policymakers to take regulatory steps in time to control the contagion before it spreads in the banking system in a big way.

Introduction

The rising debt of corporate firms with less ability to repay is taking India towards the path of Crisis. Also, banks (public sector banks) are increasingly getting saddled with Non-Performing Assets. This Problem is called Twin Balance Sheet problem.

For some time, India has been trying to solve it using a decentralised approach, under which banks have been put in charge of the restructuring decisions. But decisive resolutions of the loans, concentrated in the large companies, have eluded successive attempts at reform.

Perhaps it is time to consider a different approach – a centralised Public Sector Asset Rehabilitation Agency that could take charge of the largest, most difficult cases, and make politically tough decisions to reduce debt.

There are two statistics for a corporate house, which need to be looked at to understand the nature of the debt crisis. One is the amount of bank loans taken in a particular year and the other is whether the firms were financially healthy enough to take the loan in the first place. The latter is measured by whether they made enough profits in a particular period to even cover for the interest payments accrued on past debts. Simple logic says that latter should not be given more loans. At the heart of the U.S. sub-prime crisis was the fact that loans were dished out increasingly to households which were financially weak in paying back loans (called sub-prime borrowers). That's where the similarity lies. What was true for the household sector could be true for the corporate sector in India.

For a firm to be financially healthy, just as a family taking a loan, it should make enough profits to cover for both (in financial terms, these are called hedged firms). On the other hand, an unhealthy firm (the Ponzi firm) is one which does not even cover its interest payments. The ponzi firms should not be given more loans as that is a sure-shot recipe for disaster.

Measuring Financial Health

The health of a firm is measured by what is called the Interest Coverage Ratio (henceforth ICR). It is a ratio of net profits to interest payments due on past debt. It being less than 1 is a danger sign for the lender because it means that the firm is not even making enough profits to pay for its past interest payment commitments let alone the principal amount.

The data for 2011-2015 shows that debt of firms with failing financial health (ICR less than 1) has been going up since 2011. This means firms were able to extract fresh borrowing from the banks despite not paying interest on previous debt.

The three other measures to measure the financial health are:

- ▶ Profitability i.e. whether the firms were making positive post-tax profits
- ▶ Ratio of current assets to current liabilities to measure what part of the liabilities they can pay off if they were to sell their assets
- ▶ Debt to equity (own capital) ratio to measure how much have they stuck their own neck out compared to other people's money in the risky adventure they are undertaking.

The well-accepted thresholds for these measures are 0, 0.5 and 5 i.e. firms which are making negative profits, can honour at least half their liabilities by selling off the assets, while debt is five times as large as own capital respectively.

Impact of high NPAs

- ▶ Banks have reported that nonperforming assets had soared, to such an extent that provisioning had overwhelmed operating earnings. As a result, net income had plunged deeply into the red.
- ▶ NPAs nonetheless continued to climb, reaching 9percent of total advances by September — double their year-ago level. Equally striking was the concentration of these bad loans. More than 80% of the non-performing assets were in the public sector banks, where the NPA ratio had reached almost 12 percent. At its current level, India's NPA ratio is higher than any other major emerging market higher even than the peak levels seen in Korea during the East Asian crisis.
- ▶ At least 13 of these banks accounting for approximately 40 per cent of total loans are severely stressed, with over 20 per cent of their outstanding loans classified as restructured or NPAs. With such a large fraction of their portfolios impaired, it has become extremely difficult for them to earn enough income on their assets to cover their running and deposit costs.
- ▶ So, Indian economy is facing twin balance sheet (TBS) problem—the impaired financial positions of the Public Sector Banks (PSBs) and some large corporate houses. TBS problem is the major impediment to private investment, growth of credit and it has increased cost of credit to MSME and home loans.

Solutions and the Way Forward

4R's solution suggested by Economic survey 2015-16 are: Recognition, Recapitalization, Resolution, and Reform.

- ▶ **Recognition:** Banks must recognition the problem, earlier they were shy of presenting the true picture about stressed assets but Asset quality Review by RBI has shown the true extent of stressed assets including NPA in banking sector.
- ▶ **Recapitalization:** capital position of PSB must be safeguarded via infusions of equity (recapitalization) as the banks have been demanding. In this context, the capital requirement of extra capital for years up to FY 2019 is likely to be about Rs.1,80,000 crores. Out of the total requirement, the Government of India proposes to make available Rs.70,000 crores.
- ▶ **Reform:** Future incentives for the private sector and corporate must be set right (reform) to avoid a repetition of the problem. In PSB, structural reform aimed at preventing future increase in NPA should take place through diluting government majority ownership in the public sector banks and infusing market discipline.
- ▶ **Resolution:** The underlying stressed assets in the corporate sector must be sold or rehabilitated. Three of these mechanisms is particularly notable. For some time, the RBI has been encouraging the establishment of private Asset Reconstruction Companies (ARCs). Secondly, the Strategic Debt Restructuring (SDR) scheme was introduced, under which creditors could take over firms that were unable to pay and sell them to new owners. Thirdly, the Sustainable Structuring of Stressed Assets(S4A) was announced, under which creditors could provide firms with debt reductions up to 50 percent in order to restore their financial viability. In principle, these schemes taken together might have provided a comprehensive framework for dealing with solvency problems. Their success, however, has been limited.
- ▶ **Insolvency and Bankruptcy Code:** Moreover, majority of participating banks believe that the Insolvency and Bankruptcy Code provides an effective mechanism for resolution of insolvency and will help banks in their recovery efforts.

Miscellaneous News

Context

Hereby, compiling the important short notes of February (1 to 15), 2017.

Swachh Dhan Abhiyan

Income Tax Department (ITD) has initiated Operation Clean Money. Initial phase of the operation involves e-verification of large cash deposits made during 9th November to 30th December 2016. Data analytics has been used for comparing the demonetisation data with information in ITD databases.

In the first batch, around 18 lakh persons have been identified in whose case, cash transactions do not appear to be in line with the tax payer's profile. ITD has enabled online verification of these transactions to reduce compliance cost for the taxpayers while optimising its resources.

The Swachh Dhan Abhiyan will help track all the accounts in which money has been deposited.

Data analytics will be used to select cases for verification, based on approved risk criteria. If the case is selected for verification, request for additional information and its response will also be communicated electronically. The information on the online portal will be dynamic getting updated on receipt of new information, response and data analytics. The response of taxpayer will be assessed against available information.

In case explanation of source of cash is found justified, the verification will be closed without any need to visit Income Tax Office. The verification will also be closed if the cash deposit is declared under Pradhan Mantri Garib Kalyan Yojna (PMGKY).

India Innovation Index

To make India an innovation-driven economy, NITI Aayog, Department of Industrial Policy & Promotion (DIPP) and Confederation of Indian Industry (CII) together launched a mega initiative "India Innovation Index" that will rank states on Innovations through country's first online innovation index portal that will capture data on innovation from all Indian states on innovation and regularly update it in real time.

The India Innovation Index Framework will be structured based on the best practices followed in Global Innovation Index (GII) indicators and additionally by adding India-centric parameters those truly reflect the Indian innovation ecosystem. This initiative will be the point of reference for all international agencies to collect India's up to date data points for global indices and analytic.

This portal will be a first-of-its-kind online platform where Global Innovation Index indicators and India-centric data from various states will be coalesced and disseminated and updated periodically. This will be a one-stop data warehouse and will track progress on each indicator at the National level and the State level on real-time basis. The access to this portal will be hosted on the NITI Aayog website, and NITI Aayog will update this data periodically.

Data collated on this portal will not only be used to ameliorate current data gaps w.r.t the GI, but be the prime source for the **India Innovation Index**, which will be jointly developed by NITI Aayog, DIPP and CII, in consultation with World Economic Forum, the World Intellectual Property Organization, Cornell University, OECD, UNIDO, ILO, UNESCO, ITU and others with the objective to rank Indian states as per their innovation prowess and provide impetus to them to build their respective innovation ecosystems

and spur the innovation spirit among institutions and people.

About Global Innovation Index

The Global Innovation Index (GII), co-published by World-Intellectual Property Organization (WIPO), Cornell University and INSEAD with CII as a Knowledge Partner since inception, has been ranking world economies including India since 2007 according to their innovation capabilities and outcomes using 82 indicators among a host of other important parameters. It has established itself as both a leading reference on innovation and a 'tool for action' for policy makers.

India currently ranks 66th out of 128 countries on the Global Innovation Index (GII) 2016.

Pradhan Mantri Gramin Digital Saksharta Abhiyan

As per the 71st NSSO Survey on Education 2014, only 6% of rural households have a computer. This highlights that more than 15 crore rural households (@ 94% of 16.85 crore households) do not have computers and a significant number of these households are likely to be digitally illiterate.

Thus the Union Cabinet has approved 'Pradhan Mantri Gramin Digital Saksharta Abhiyan' (PMGDISHA) to make 6 crore rural households digitally literate.

PMGDISHA is expected to be one of the largest digital literacy programmes in the world. Under the scheme, 25 lakh candidates will be trained in the FY 2016-17; 275 lakh in the FY 2017-18; and 300 lakh in the FY 2018-19. To ensure equitable geographical reach, each of the 250,000 Gram Panchayats would be expected to register an average of 200-300 candidates.

Digitally literate persons would be able to operate computers/digital access devices (like tablets, smart phones, etc.), send and receive emails, browse internet, access Government Services, search for information, undertaking cashless transactions, etc. and hence use IT to actively participate in the process of nation building.

The implementation of the Scheme would be carried out under the overall supervision of Ministry of Electronics and IT in active collaboration with States/UTs through their designated State Implementing Agencies, District e-Governance Society (DeGS), etc.

Mission XI Million

Union sports ministry has launched 'Mission XI million', the biggest school sports outreach programme.

The key idea of Mission Xi Million is that every child should have the opportunity to play the world's most popular sport.

The programme will encourage children to play football and the approach is to work with school principals and sports teachers and encourage and incentivise them to make children play football games on a regular basis.

The main aim of the programme is to instill the passion for football in 11 million children from every part of the country. The programme will also provide schools with necessary knowledge and equipment to encourage football as a sport played on a regular basis.

The program will be rolled out in every state of the country.

Lost Continent

Scientists have confirmed the existence of a "lost continent" under the Indian Ocean island of Mauritius. It is left over by the break-up of the super-continent Gondwana, which started about 200 million years ago.

The piece of crust, which was subsequently covered by young lava during volcanic eruptions on the island, seems to be a tiny part of ancient land that broke off from the island of Madagascar, when Africa, India, Australia and Antarctica split.

The lost continent is just a small piece of island that probably broke off when Africa, India, Australia and Antarctica split up and formed the Indian Ocean. The scientists found zircons on the island of Mauritius that are three billion years old. These remnants are too old to belong to Mauritius as it has no rock older than nine million years old. The

piece of crust of lost continent was subsequently covered by young lava during volcanic eruptions. There are many pieces of various sizes of undiscovered continent which are collectively called as Mauritius.

Zircons are minerals that occur mainly in granite from the continents. They contain trace amounts of uranium, thorium and lead, and due to the fact that they survive geological processes very well, they contain a rich record and can be dated extremely accurately.

Measles Rubella (MR) vaccination campaign launched

To protect children from major childhood diseases measles and rubella, the government has launched a nationwide vaccination campaign.

The Measles-Rubella (MR) vaccine is one vaccine that protects against two deadly diseases - measles and rubella. Measles and Rubella are only preventable through vaccination.

Under the campaign, children aged between nine months and 15 will be administered the measles-rubella vaccine (MR-VAC). The campaign will start from Karnataka, Tamil Nadu, Puducherry, Lakshadweep and Goa.

Following this, the vaccine will be introduced in the Universal Immunisation Programme, replacing the currently given two doses of measles vaccine at 9-12 months and 16-24 months of age. UNICEF and WHO are providing technical support to the programme.

Measles is a highly contagious, serious disease caused by a virus. In 1980, before widespread vaccination, measles caused an estimated 2.6 million deaths each year.

The disease remains one of the leading causes of death among young children

globally, despite the availability of a safe and effective vaccine. Approximately 134 200 people died from measles in 2015 - mostly children under the age of 5.

Measles is caused by a virus in the paramyxovirus family and it is normally passed through direct contact and through the air. The virus infects the respiratory tract, then spreads throughout the body. Measles is a human disease and is not known to occur in animals.

Committee on Girl's education

The Union HRD Ministry has constituted a sub-committee of Central Advisory Board of Education (CABE) under Chairmanship of Telangana's Deputy Chief Minister to look into issues of girl's education.

The terms of reference of the sub-committee would be

- ▶ To examine the reasons for low participation of girls in education, including the socio-economic factors with resultant gender bias, and suggest ways to reduce gender disparity so as to achieve better gender parity index.
- ▶ It will analyse girls' participation at all levels of school education across socio-economic groups of SC/ST, minorities and in rural-urban areas and reduce existing educational disparities among them.
- ▶ It will also examine the existing schemes, measures and incentives aimed at enhancing girls' participation and ensuring their retention in education and suggest improvements and modifications in the existing schemes.
- ▶ The sub-committee will further look into the issues of safety of girl students in schools, particularly in residential schools and hostels.
- ▶ It will also identify infrastructure gaps such as non-availability and/or non-functionality of girls toilets which impede retention of girl students and compile best practices adopted by states/UTs for raising standards of girls education.
