marketing

investment

strategy

website

sale

start-up

idea

profit

competition

COVER STORY:

Analysis of Startups *in* India

3		4		4		4		1
NATIONAL		INTERNATIONAL AFFAIRS		SOCIETY		ECONOMY		SCIENCE

Objective

With the changing pattern of IAS and preparation methodology, now the aspirant is facing the issue of information overload. The proper articulation of information is important for penning down one's thoughts in the Mains answer.

Thus GSSCORE is coming up with "CURRENT ANALYST" – a magazine that provides material on contemporary issues with complete analysis.

The material has been designed in lucid and QnA format so that an aspirant can develop thinking process from Basic to Advance while reading the topic.

This will enhance the informative and analytical knowledge of aspirants.

All the best !!!

Contents

COVER STORY

Startups in India

Context

The Ease of Doing Business Index report has highlighted for the need of development of startups for economic growth. In this article we are analyzing the concept of startups and its role in economic development and challenges faced by them.

A Startup Ecosystem comprises entrepreneurs, different kinds of financial and non-financial support such as debt finance, equity investments and grants, and non-financial support including incubation, acceleration support, mentoring and technical experts. It also includes the government policies and programmes relevant to startups, academia and other organizations and firms that in different ways interact with or support startups.

Definition of the startup

According to the government notification, **an entity will be identified as a startup.**

➤ **Till up to five years from the date of Incorporation.**

➤ **If its turnover does not exceed 25 crores in the last five financial years.**

➤ **It is working towards innovation, development, deployment, and commercialization of new products, processes, or services driven by technology or intellectual property.**

Start-ups are new business ventures that are carried out either by single individual or in groups. Apparently, entrepreneurs are those who run these start-ups, which involve tremendous risks in terms of financial issues, apart from creating innovative and successful products or services.

Provided that any such entity formed by splitting up or reconstruction of a business already in existence shall not be considered a 'startup'; Provided further that in order to obtain tax benefits a startup so identified under the above definition shall be required to obtain a certificate of an eligible business from the Inter-Ministerial board of Certification Consisting of:

➤ Joint Secretary, Department of Industrial Policy and Promotion,

➤ Representative of Department of Science and Technology, and

➤ Representative of Department of Biotechnology.

In India, some examples of startups are: IBM works with AI (Artificial Intelligence) startups in areas including healthcare, finance and education. For example, IBM is working with Signzy, an AI startup focused on verifying digital documents like eKYC (Know Your Customer). In June, Signzy won Reserve Bank of India's payment system innovation contest. IBM also works with TalView, which uses speech recognition to gauge personality of applicants. Other e-commerce companies such as Amazon, Flipkart and Paytm rely on AI tools to check fraud, improve conversion rates, customise selection and get a better hang on what the customer wants are some of the examples of the startups in the country.

According to a recent study by Nasscom, India has around 4400 startups that employ close to 85,000 employees. Total funding till 2015 in startups is estimated to be $6.5 billion. This excludes funding in startups incorporated before 2010, such as Flipkart, Quickr, Practo, Zomato, and Inmobi, which, if taken in account, will further inflate the investment figure. The ecosystem for both technology and traditional startups has been expanding at a quick pace.

These startups have put India on the world map by making it the third- ranked Global Start-up Ecosystem 2015.

Significance of startup

India needs 10 million jobs a year and global data shows that it is startups, not large enterprises that create net new jobs in any country. Startups can play a big role in the growth of economy as boosters. Startups can also be the centers of innovation and are a great way to enhance employment creation in the economy.

They also bring technological enhancement to the country. Startups involve dealing with new technology which generally lies at the highest end of value addition chain. With more and more startups India can aspire to be world leader in skilled work and not just an outsourcing destination for cheap IT services.

Developed nations are now looking towards fast growing and emerging nations such as India to gain maximum from the huge untapped potential markets. In the recent years, different countries are taking different initiatives to link up their businesses with the Indian startups in almost all sectors including defense. Such joint venture can attract the huge foreign fund which can boost the country's growth.

Venture capital funds from abroad and angel investors are proving to be a big boon for Indian startup story. Indian startups such as Flipkart, Olacabs, Snapdeal, Hike, Shopclues, Freecharge, Inmobi etc. receive various rounds of follow-on financing as well either from their existing investors or from any new investor. These various rounds of funding also help these firms to hire more talent into the company. This helps the company to grow strategically and also add some more experienced people in the firm. In the recent times head hunting and poaching are common among these tech startups. There is a huge demand for Indian software engineers around the world. Any startup owner in any country sets an eye to hire talent from India, since it reduces their cost by almost 25% and at the same time it provides a very good employment opportunity for the developer.

Apart from funding, mergers and acquisitions are also helping these startup companies to grow by acquiring new capabilities directly and expanding into the market share of the acquired company. The best example of this could be buying of Myntra, an app based shopping portal by another technology giant Flipkart to gain the market share. Snapdeal recently acquired Freecharge to grow into the area of mobile payment gateways, since mobile payments are a next hot spot sensed by various startups presenting immense opportunities for further penetration. Not only in India but also internationally tech giants have used acquisition of companies as a way to maintain their position of market leader and also as a way to enhance diversification. An example of this could be acquisition of messaging app Whatsapp by another giant Facebook.

Startups are flourishing in India not only in the field of internet but in various other fields as well. Educational tech startups are a new hot bee among various investors since it is anticipated that the complete educational system will be digitized in the near future. Similarly, startups are also eyeing big data for analytics, healthcare, beauty and fitness, biotechnology and other areas as well. Several startups have also ventured into food delivery service as well. Examples include Mast Kalandar in Mumbai and Bangalore, Eatlo, Freshmenu, TinyOwl etc. These have generated employment opportunities in large number for unorganized sections of the society in the form of delivery persons. At the same time, it has increased convenience for consumers as well.

Apart from shiny conventional startups there are enterprise startups as well. They are broadly classified into two types: Application and platforms. These are basically B2B startups and aims to simplify the various underlying processes for businesses. Application startups are basically for IT, developers etc. Exotel, Knowlarity are startups for developing applications. Young entrepreneurs are also exploring opportunities in the field of development of gateways for mobile or online payment. It is a well-known fact that India is all set to become the second largest market for smartphones by 2016 after United States. It is mainly going to happen due to increase of affordable smartphones in the country. This sector witnessed almost 50% growth in the year 2014 only. Due to this, it is anticipated that the number of people using online transactions will also increase at the same pace, presenting huge opportunities for Indian startups. Startups such as Paytm, Inmobi, freecharge etc. have already started covering this market.

Indian government is also taking several steps to build an environment which is suitable for startups, since small businesses can play a very important role to develop and boost Indian

economy in the future. In the Union Budget of 2015, government has established a process or a mechanism known as Self Employment and Talent Utilization (SETU) to support all the aspects of startups right from their seed financing stage to their growth stage. Also, government is also setting up 'innovation labs' at various places which are similar to that of 'incubation centers' in large national and foreign universities. It is also anticipated that government may roll out a Rs. 2000 crore fund to provide seed capital to startups related to IT and biotechnology.

Considering the importance of role that the Indian startups are all set to play in the growth of Indian economy, the amount of income and the huge number of jobs that can be created by facilitating startups, even the market regulator Securities and Exchange Board of India (SEBI) has also relaxed some rules to facilitate the flow of funds from the market to the startups.

Hence, taking into consideration all the above developments, it can be concluded that indigenous startups will not only make the lives of the people easier through their affordable and convenient services but will also act as a major booster for the development and the progress of the Indian economy.

Thus key reasons for encouraging startup entrepreneurship are:

➤ **Innovations:** They are the main driving force behind economic development and the increase of) productiveness in a knowledge-based society. Startup companies are the most suitable form of implementing inventions and consequently the best mechanism for commercializing technological and other novelties. Startup companies contribute to a quick development of new technologies and the location where they operate. Large companies often buy startup companies because of technology (fundamental ingredient that they then integrate into their business and thus keep their competitive advantage. At the same time, they provide knowledge as well as spin-off and spin-out companies to the startup environment, which wouldn't be possible without a well-functioning startup ecosystem.

➤ **New jobs and economic growth:** In the long term, startup companies create a large portion of new jobs and contribute to the country's economic growth. Considering that startup companies are based on innovations, the potential of startup companies represents the healthy core of the economy. If the country wishes to encourage new employments in the long term, it is necessary for it to invest into the segment of companies that create the most jobs in the long run (in 10 years and more). Startup companies are the ideal form and opportunity for employing and activating the Y generation.

➤ **Bringing new competitive dynamics into the economic system:** Startup companies are the most dynamic economic organisations on the market, since they provide additional dynamics and competitiveness to the economic system. This means that the economy stays healthy, vital and diligent, while individual companies find it harder to fall asleep on their laurels.

➤ **Promoting the research-innovation system:** High-tech as well as knowledge-based service startup companies are very closely connected to knowledge institutions. An appropriate entrepreneurship ecosystem thus promotes the research & development as well as research & innovation approach of knowledge institutions, companies and connecting institutions as well as contributes to the applicative orientation of research work at universities and research institutions. Meanwhile it also works as a role model and encourages students and researchers to implement their ideas via a startup company.

➤ **Bringing the values of pro-activity into the society:** Startup entrepreneurship changes the values of the society and brings a new mind-set, in line with the society based on knowledge and creativeness. The population is starting to increasingly realize that they have a responsibility for their work and career development.

Technology, in both its evolutionary form and in its revolutionary form, has changed our lives drastically. Some of the products, by-products and services that have transformed the way of life, such as tablets, smart phones, the Internet, social media etc., have been a result of revolutionary innovation.

Apart from delivering value to their customers, startups have a direct impact on the cities they make their homes. Infosys has

impacted Bangalore is a case studies in themselves. Employment opportunities for youth increased and new employment patterns came into picture. Demand and employment opportunities for engineers saw a steep rise. Local youth had new opportunities to pursue, and experienced talent started moving to these cities in pursuit of a challenging and high-growth career. As demand for highly talented youth increased in these cities, they saw a surge in inflow of recent graduates. As more and more college graduates started settling down in these cities, lifestyle patterns and culture also saw a wave of change.

These startups not only created new industries and came up with more revolutionary technology over time, but also created a stream of millionaires in the city. When these startups went public, they became engines of creation not just for themselves, but for their employees and their shareholders.

Case study:

Narayan Murthy, who co-founded Infosys, ushered in a new era of wealth creation among its middle-class employees in India. Infosys was one of the first companies in India to offer its employees ESOPs (employee stock ownership plans) and made millionaires of them. In 2000, Infosys had almost 2,000 rupee-millionaires on its staff and over 200 dollar-millionaires. Microsoft not only impacted the whole computing industry, but also created a new software industry that would go on to rule the world of technology.

The Infosys Foundation was started in 1996 by Infosys. The foundation works in partnership with NGOs to help underprivileged rural communities in India in the areas of healthcare, education, culture, care for the destitute and rural development. Later in 2009, the Infosys Science Foundation, a not-for-profit trust, was started by Infosys and some members of its Board. Which has encourages in the field of the, Engineering and Computer Science, Humanities, Life Sciences, Mathematical Sciences, Physical Sciences and Social Sciences for scientist and researchers.

Sectors where Startups are flourishing

E-Commerce, healthcare, IT, telecom and education sectors:

Fig. 1

Indian e-commerce market will cross 150 billion USD mark by 2020 as we look in to the current growth rate. The potentiality in the market and according to expert's prediction about online retail market will cover 29% market share by 2020.

Hence, there is a huge scope for online service provider from different industries and retailer of all sectors to grow in the Indian market in next 5 or 10 years. IT sector is already dominating international market. A vast region is still unexplored for Telecom and education sectors, which is again a huge advantage with tremendous business opportunities. Healthcare sector is also gaining speed as far as business opportunities are concerned.

Digitalization is yet to be expanded in many places, specially required to identify a way to reach Indian rural market to fulfill their day to day retail demand and services. As of today Government has already provided G2C services to the Indian rural market through internet connectivity and other equipments with their nationwide e-Governance Projects.

Different services from different sectors in the area of e-Educations, e-Commerce, e-Health, e-Banking, e-Documentation will grow subject to market trends and high speed internet availability in such areas.
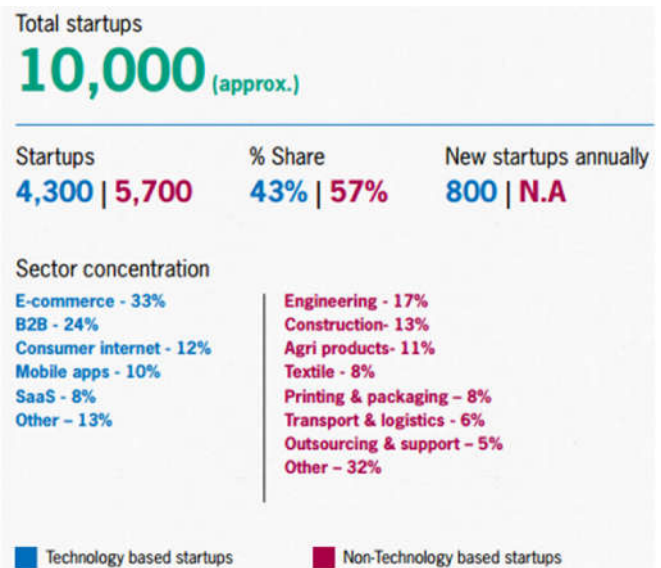
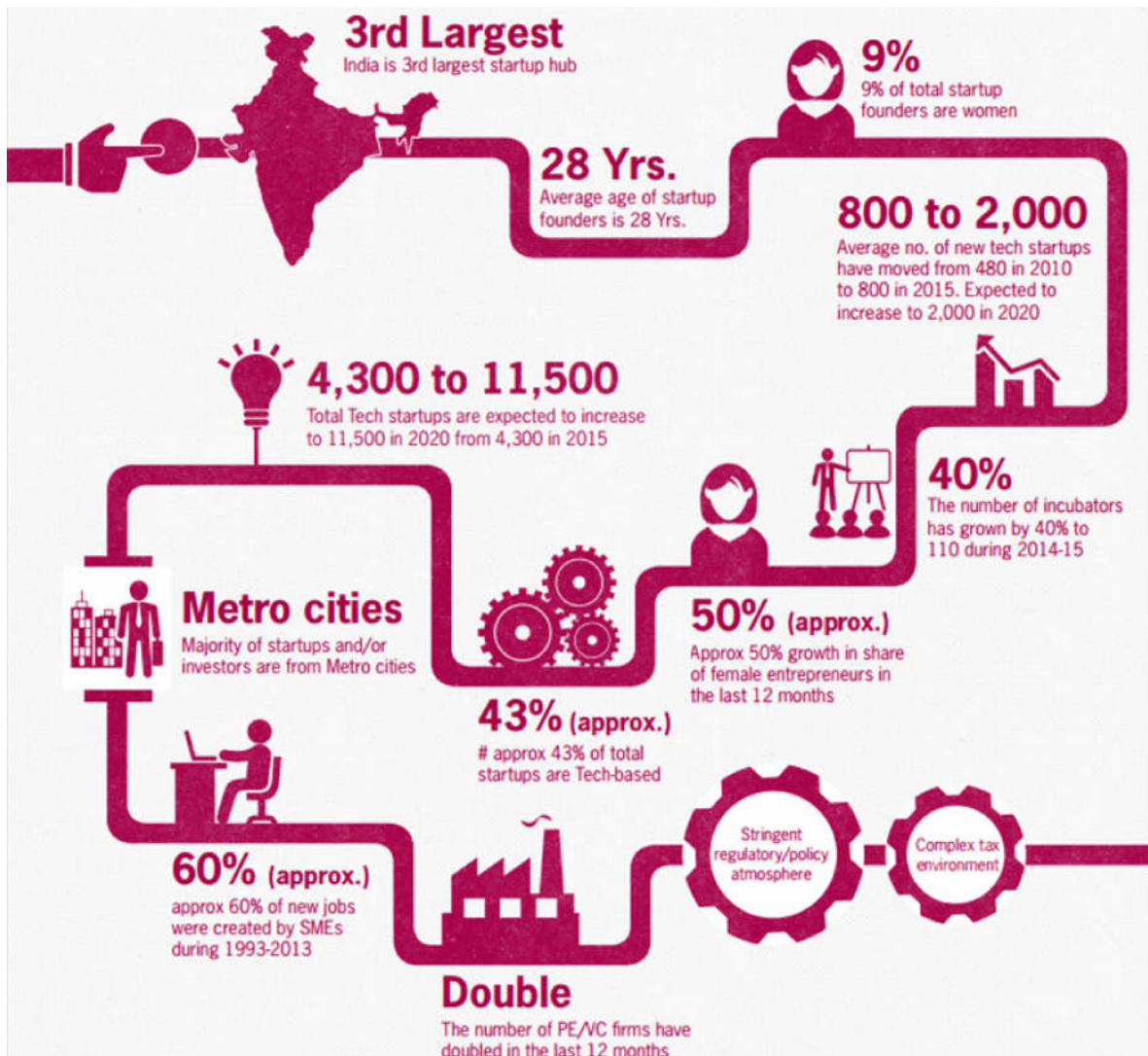

Fig. 2: Indian startup industry composition

Fig. 3: Current state of Indian startups

Issues faced by Start-ups in India

The latest edition of the World Bank's Doing Business Report (DBR) sees India marginally improve its 'Ease of Doing Business' ranking by just one spot, moving to 130th from 131st last year. New Zealand topped the Doing Business Rankings this year, displacing Singapore which fell to second place. Along with India, all the BRICS nations exhibited subdued performances as Brazil fell to 123rd from 121st in 2016, Russia fell to 40th from 36th in 2016, and South Africa slipped two places to 74th from 72nd in 2016. China marginally improved from 80th in 2016 to 78th.

India's ranking deteriorated in five parameters – dealing with construction permits, access to credit, protecting minority investors, paying taxes, and trading across borders. No change was observed in the parameters of starting a business, registering property, and resolving insolvency.

Some of the achievements recognized by the World Bank for this past year include the establishment of an electronic system for companies to pay employee insurance contributions, easier procedures for exporting and importing, and new arbitral mechanisms for resolving commercial disputes.

Unfortunately, what really undercut India's overall score this year was the country's abysmal performance in the post filing index criteria.

According to the report the challenges faced by Startups in India are:

► One of the most commonly highlighted constraints for statups is finance. Startups use a range of different kinds of finance, from grants, through to debt and equity, as well as informal 8 sources such as savings and investment and loans from family and friends.

► Two key issues are the lack of early stage funding – angel and seed funding - and the current concentration of funding towards technology and e-commerce. Venture Capital funds in India generally invest in firms that are already generating revenues, therefore investing relatively late in the startup cycle.

Seed capital/Seeding:

It is a form of securities offering in which an investor invests capital in exchange for an equity stake in the company. Seed capital is the initial capital used when starting a business,

often coming from the founders' personal assets, friends or family, for covering initial operating expenses and attracting venture capitalists. This type of funding is often obtained in exchange for an equity stake in the enterprise, although with less formal contractual overhead than standard equity financing. Because banks and venture capital investors view seed capital as an "at risk" investment by the promoters of a new venture, capital providers may wait until a business is more established before making larger investments of venture capital funding.

Seed Stock:

An investment security that is based on shares of a publicly traded, agriculture-based company is involved in plant research and development. A seed stock is any stock that represents a company that researches and produces seeds for planting crops and develops new seed products to increase farmers' yields or otherwise improve seed performance.

Angle investors:

They are an affluent individual who provides capital for a business start-up, usually in exchange for convertible debt or ownership equity. A small but increasing number of angel investors invest online through equity crowd funding or organize themselves into angel groups or angel networks to share research and pool their investment capital, as well as to provide advice to their portfolio companies.

► Startups looking for funding of less than Rs. 50 lakh therefore often struggle to access investors. In fact, startups in India spend five times the amount of effort to raise funds as compared to US startups.

► While banks are the primary providers of debt finance, startups often find it difficult to access bank loans. Banks are generally unwilling or unable to finance startups, for example because of lack adequate collateral, limited cash-flow, or because there is a lack of understanding of risks.

► India currently lacks availability of incubation (startup incubators in India) facilities across various parts of the country. Incubation facilities typically include physical infrastructure, provision of mentorship support, access to networks, access to market, etc. Of all these

features, physical infrastructure entails large capital investments which can generally be facilitated by the Government.

► Great number of universities and colleges today offer entrepreneurship courses, several have incubation services and many more student clubs encouraging startups an entrepreneurship, a common complaint is that research at universities is often not applicable or accessible to startups or the startup ecosystem. There are relatively few successful spinoffs emerging from Indian universities to date.

► Technical and vocational training institutes and courses are not currently geared towards a startup economy.

► Likewise, schooling in India today does not foster skills for startup and entrepreneurship based economies given the emphasis on route learning and old-fashioned curricula that does not equip students with skills for a modern knowledge economy.

► Access to the right human resources - due to lack of network connects resources and societal constraints (though this is changing rapidly) is also a big issue.

► Indian markets are largely unorganised and fragmented that create a roadblock for a startup to succeed.

► Behaviour of Indian consumer changes in every 30-50km that makes it really difficult for a startup to create business or market strategy for their products or services. Most startups generally get stuck in stagnancy and gradually shut down.

► An important problem faced by startups is related to location of their business. India is a place of varied culture and taste and thus every product might not be welcomed equally in every region.

► **Cyber security:** Most startups have a B2B business model. This is where cyber risk may rise as they are not aware of potential risks that might exist for their startup business - No back-up plan to keep the startup company running when an accident destroys some key equipment in their data centre.

► **Operational finance:** Most startups are self/family funded with limited workforce which makes it difficult to maintain records both financial and operational. - Flawed business models and lack of innovative revenue strategies have led to the failure of many

startups and they are forced to shut down operations - Overcoming unnecessary business steps to manage business operations

► **Funding/Capital Deficiencies:** Capital and access to capital has been a perennial problem for startups - Government and private sector investors have set aside funds through investment channels but they are not available for all forms of business. The biggest problem for such organisations has been to attract investors and gain their trust with regard to their mode of operations - In the initial phase of operations, startups do not get funding from banks given no credit history of the firm. In addition, there is limited number of credit rating firms for small and medium sized enterprise. - Despite having raised good investments, startups struggle to survive the competition. Startups are unable to mitigate the gap between burn rate and revenue.

► **Cash flow management:** Effective cash management is an important factor to achieve objectives both short term and long term. Cash is still a preferred option for payments owing to the fact that electronic payment has not achieved complete penetration to Tier 2 and Tier 3 cities - Gap between burn rate and revenue: Given rising competition from peers both from big as well as small, it becomes imperative for startups to scale up the business and require external funding for the sustainability/growth in the market. - Evolution on the basis of funding: Mega funding and mega announcements have become a thing of the past, post consolidation on a large scale across the sector over the alst few years. Both the investor and the entrepreneur are now more consciously focussing on innovation, capital efficiency and client/customer satisfaction, a view which is bound to impact the funding scenario hence-forth.

► **Multi window clearances:** Budding entrepreneurs have to make multiple trips to government offices to register and seek clearances. Urgent need to scrap multiple regulatory clearances.

Role of Incubators:

Incubators work with startups to develop entrepreneurial skills such as building a business around an idea, creating and testing a prototype and understanding the market. Incubator programmes can be relatively long-term – over a year.

Accelerators offer usually shorter and more intense programmes to hone in on the business model, the market opportunity and the product.

Co-working spaces are shared offices that typically have open space and offer desk space as well as other facilities such as administrative help or services such as couriers. In addition, there may be formal or informal networks of mentors or entrepreneurs based at the co-working space. India's largest cities have a number of co-working spaces.

Google offers startups USD 100,000 in credit to use its Cloud Platform from which startups can run their applications. The programme helps startups build and scale. The services include: Computer platform as a service, Storage that startups can use, Big Data analysis through the cloud platform and Google's applications, Connectivity, and Firebase – a platform programme that enables developers to build mobile and web apps that store and sync data. Additionally, Google is setting up a forum so that startups can call Google for assistance by connecting the entrepreneur to an MSME that helps solve the problem. Google for Entrepreneurs Programme Resources include mentoring and other support such as with organizing pitches.

There are 90 incubators supported by the Department for Science and Technology (DST), and some of these incubators are doing very well (such as Startup Village in Kochi). Many of the incubators have seed funds, tie-ups with technical services, and mentors. There are also very specialised incubators – such as the partnership with DST, Boeing, HAL and others at IIT-B – the National Centre for Aerospace Innovation. Here the industry has come forward and contributed equipment, capital and raw material and by doing so raising the value a great deal.

Government Policy Initiatives

Indian government aims to build an ecosystem that promotes entrepreneurship at the startup level and has taken a number of initiatives to ensure that the startup businesses get appropriate support. The steps initiated are:

A. Make in India:

A big initiative "Make in India" to promote the manufacturing sector by promoting companies to invest in the sector. The intent of the campaign is to attract foreign investments and encourage domestic companies to participate in the manufacturing thereby contributing to the growth story. The government also took various steps to build a favourable environment to do business in the country. For example, an online system for environment clearances, filling income tax returns and extension of validity of industrial licenses to three years have been put in place.

➤ The government increases the foreign Direct Investment limits for most of the sectors

➤ Protection of the intellectual property rights of innovators and creators by upgrading infrastructure, and using state-of-the-art technology.

B. Standup India:

It aims to build systems for enabling startups and wants to make the country as a number one destination for startups. In August 2015, he announced a new campaign "Standup India" to help startups with bank funding and encourage entrepreneurship among the young Indians. All 1.25 lakh bank branches in the country are to fund at least one startup founded by tribals and dalits.

Standup India: On 6th January 2016, the Union Cabinet has given approval to Standup India campaign which aimed at promoting entre-preneurship among women and scheduled castes and tribes. Some of the salient features include:

➤ Loans under the scheme would be given for greenfield projects in the non-farm sector,

➤ Intention of the scheme is to facilitate at least two such projects per bank branch,

➤ The scheme is expected to benefit at least 250,000 borrowers in 36 months from the launch of the Scheme. It also plans to ease out the existing regulatory regime for startups and is considering extending tax incentives to them. The Department of Industrial Policy and Promotion (DIPP) is currently working around a clear definition for startups to ensure that the regime is available to businesses.

C. Digital India:

This is an initiative led by the Indian government to ensure that government services are made available to every citizen through online platform. In July 2015, the Digital India initiative that aims to connect rural areas by developing their digital infrastructure. This translates into a huge business opportunity for startups. E-Commerce companies in India are planning to

break into India's rural market as a part of the government's Digital India initiative. In September 2015, PM visited Silicon Valley, US and had meetings with a number of founders of technology firms and industry leaders such as Satya Nadella and Sundar Pichai to talk about ambitions of developing a better startup ecosystem According to NASSCOM startup report 2015, every year more than 800 tech startups are being set up in India. By 2020, a projected 11,500 tech-startups are going to emerge and will employ around 250,000 people.

D. Financial assistant:

Government's plan to set up Micro Units Development Refinance Agency (MUDRA) Bank and a Credit Guarantee Fund with a refinance capital of INR 20,000 cr and INR 3,000 cr.

▶ In April 2015, the government launched Mudra Bank to boost the growth of small businesses and manufacturing units. The newly Bank would provide a credit facility of up to INR 50,000 to small businesses, loan of up to INR 5 lakh to little bigger businesses and loan of up to INR 10 lakh to the MSME sector MUDRA Scheme: On 6th January 2016, the Union Cabinet has given approval to the following proposals:

▶ The cabinet has approved the creation of a Credit Guarantee Fund for MUDRA loans - It is expected that the fund will guarantee loans of over INR 1,00,000 cr to micro and small businesses in the first instance - According to the finance minister, the MUNDRA scheme is expected to provide benefits to 1.73 cr. people - The fund will guaranteeing loans sanctioned under Pradhan Mantri Mudra Yojana with the effect form. 8th April'15.

▶ The cabinet also given its go ahead to convert MUDRA Ltd. into MUDRA Small Industries Development Bank of India (SIDBI) Bank as a wholly owned subsidiary of SIDBI Additionally, the government has set a target to provide a total loan of INR 1.22 Lakh cr. to promote new entrepreneurs and fund the unfunded businesses with the help of banks India Aspiration Fund: The finance minister also announced the India Aspiration Fund to encourage the startup ecosystem and allocated INR 400 cr. to various venture funds. He also launched another program called **SMILE** (SIDBI Make in India Loan for Small Enterprises) with an allocation of INR 10,000 cr. The objective of the scheme is to offer soft loans in the form of quasi-equity and term loans on soft terms to MSMEs.

E. Startup Exchange:

The SEBI announced a new set of listing norms for startups, including e-Commerce ventures, planning to raise funding from listing on stock exchanges. These new norms will provide relaxations in disclosure related requirements, takeover and Alternative Investment Fund regulations for IT, data analytics, and intellectual property, bio-technology or nano-technology companies.

F. Self-utilisation and Talent Utilisation (SETU):

The government is planning to set up a mechanism called SETU, under the newly formed NITI Aayog, to provide technical assistance and incubation to startups. In 2015 Union Budget, Finance Minister, Arun Jaitley, has set aside INR 1,000 crore for support startups.

The Government of India has taken various measures to improve the ease of doing business and is also building an exciting and enabling environment for these Startups, with the launch of the "Startup India" movement. The "Startup India Hub" will be a key stakeholder in this vibrant ecosystem and will:

▶ Work in a hub and spoke model and collaborate with Central & State governments, Indian and foreign VCs, angel networks, banks, incubators, legal partners, consultants, universities and R&D institutions.

▶ Assist Startups through their lifecycle with specific focus on important aspects like obtaining financing, feasibility testing, business structuring advisory, enhancement of marketing skills, technology commercialization and management evaluation.

▶ Organize mentorship programs in collaboration with government organizations, incubation centers, educational institutions and private organizations who aspire to foster innovation.

▶ Efforts should be made in helping start ups, with tax clarity, incubation, affordability and licensing. It could also be by providing startups capital, resources to broaden awareness, inspiration and more and more meeting space for the newest innovators & tomorrow's business leaders.

G. Start up India'

Startup India is a flagship initiative of the Government of India, intended to build a strong eco-system for nurturing innovation and Startups in the country that will drive sustainable economic growth and generate large scale employment opportunities.

The Government through this initiative aims to empower Startups to grow through innovation and design. In order to meet the objectives of the initiative, Government of India is announcing this Action Plan that addresses all aspects of the Startup ecosystem. With this Action Plan the Government hopes to accelerate spreading of the Startup movement:

➤ From digital/ technology sector to a wide array of sectors including agriculture, manufacturing, social sector, healthcare, education, etc.; and

➤ From existing tier 1 cities to tier 2 and tier 3 cities including semi-urban and rural areas. The Action Plan is divided across the following areas:

◻ Simplification and Handholding

◻ Funding Support and Incentives

◻ Industry-Academia Partnership and Incubation

Startup India campaign has been launched to promote entrepreneurship. It will not only increase jobs but also increase opportunity for migrants (foreigner) who wish to come to India and work/live here. The campaign will also help to improve entrepreneurship quality which will indirectly help to revive country's business oriented reputation on international platform.

Steps to be taken under Startup India scheme

A. Simplification and Handholding

➤ Simple Compliance Regime for startups based on Self-certification

➤ Launch of Mobile app and Portal for compliance and information exchange

➤ Startup India Hub to handhold startups during various phases of their development

➤ Legal support and fast-tracking patent examination at reduced costs

➤ Relaxed norms of public procurement for startups

➤ Faster exit for startups

B. Funding support and Incentives

➤ Providing funding support through a Fund of Funds with a corpus of Rupees 10,000 crore

➤ Credit guarantee fund for startups

➤ Tax exemption on capital gains invested in Fund of Funds

➤ Tax exemption to startups for 3 years

C. Industry-Academia Partnership and Incubation

➤ Organizing Startup Fests to showcase innovations and providing collaboration platforms

➤ Launch of Atal Innovation Mission (AIM) with Self –Employment and Talent Utilization (SETU) Program of NITI Aayog

➤ Harnessing private sector expertise for setting up incubators

➤ Setting up of 7 new research parks modeled on the Research Park at IIT Madras

➤ Launching of innovation focused programs for students.

➤ Annual Incubator Grand Challenge to promote good practices among incubators.

D. Credit Guarantee Fund

➤ The initiative provides for creating a credit guarantee fund for startups through National Guarantee Trust Company (NCGTC)/SIDBI with a Corpus of Rs.500 crore per year for the next four years.

Importance of innovation and steps taken

Start-ups are risky in nature, but a successful entrepreneur tries to minimize risk and promote business venture through in-depth research, proper planning, and appropriate skill development. One of the main features of being a successful entrepreneur is his/her flexibility in adapting to recent trends, market growth, modern technologies, dynamic rules and financial environments. Innovation is the process of creating and implementing a new idea. It is the process of taking useful ideas and converting them into useful products; services or processes or methods of operation. Change often involves new and better ideas.

Start-up's needed for initial support and planned strategies. A big challenge is to support those who don't have venture capital support, in the last two years. For example, government has understood the importance of start-ups being job creators and has taken steps to encourage VC

funds, the primary focus is not on money but on mentoring the start-ups through professional support and advice. Proper investment criteria must be followed which is sought for funding a start-up.

According to the finance minister, 'If we really want to create jobs, we have to make India an investment destination, which permits the start of a business in accordance with publicly stated guidelines and criteria'. Keeping the promise in line, government has formed a panel on 7th April 2015 by Department of Industrial Policy and Promotion (DIPP) to simplify the regulations and ease of doing business.

Similarly, entrepreneurship has proven to be critical to India's growth and development, given its increasing significance and visible impact in wealth-creation and employment-generation. As per The EY G20 Entrepreneurship Barometer 2013 report "The power of three: Together, governments, entrepreneurs and corporations can spur growth across the G20.

Increasing access of private equity, positive environment promotes the culture of entrepreneurship, Tax and regulation for entrepreneurial activities in India, education and training for entrepreneurship, increase in unofficial access to unofficial training networks, improvement in coordinated support (through informal entrepreneurial networks), are brings the positive impact in context with the startups.

Initiatives by Big Corporates

Big corporates generally focuses on innovation, performance excellence and risk management in order to compete in the dynamic global business environment. Issues related to tightening of research and development budgets, increasing digital disruption and organisational bureaucracy make it difficult for large companies to innovate on their own.

Rising number of corporates are looking in search of diverse information, creative people and processes at the smaller companies or star-ups:

➤ Many corporates are now shifting their focus from investments into their own research and development to investments in multiple source of innovation, focusing in particular on technology based startups

➤ Nandan Nilekani is investing US$ 1-2 mn in startups in many sectors including telecom, aerospace, publishing, logistics etc.

➤ Ratan Tata recently invested an undisclosed sum in Tracxn, a Bengaluru-based startup intelligence firm.

➤ Corporates collaborate with other small firms including startups by investing fully or partially to access to their pool of talent, assets and capabilities.

➤ Big firms often look at smaller companies as they are more agile, with less bureaucracy and fewer approvals required to develop innovative products.

Startups in India have managed to get funding from various informal channels including corporate, angel/seed or VC funding. There are a few startups with innovative business ideas which have managed to raise funds through "Crowdfunding", where a large number of investors contribute capital through various channels including internet, mail-orders, events etc. For example, startups such as Ketto, BitGiving and Wishberry have raised money through this concept. Over the recent years, "Crowdfunding" as a concept has gained popularity globally, however, in India, it is still at a nascent stage and is expected to pick up as a regular funding channel with the increase in awareness.

NASSCOM REPORT

According to NASSOCM report, there is a 40 % growth in the number of incubators to reach to approximately 110 in 2015 as against around 80 in 2014.

➤ Approximately 50% of total incubators are set up in non-metro cities i.e. outside NCR, Bengaluru and Mumbai to offer.

➤ Growing number of educational institutes have started setting up incubator programmes independently or jointly. Shri Ram College of Commerce, New Delhi for example has set an incubator to help their student in their own starups, VESIT college of engineering has set up an incubation centre with the same objective.

➤ Big corporates are also setting up incubator programmes to help startups. Tata Group launched T-Hub, Google, Microsoft Ventures etc.

➤ Tata has come up with country's largest technology incubator centre 'T-Hub' in Hyderabad.

➤ Google has come up with a Launchpad accelerator programme for specific to mobile startups in India, Brazil and Indonesia with training and developmental support and upto US$ 50,000 in equity-free funding.

➤ Y-Combinator, a popular incubator in the San Francisco Bay Area has designs to make investments in India in the near future. Venture capital invests in both stages of company based on the following criteria: Early stage: Includes first or second round of institutional investments into companies:

◙ Average of less than 5 years old

◙ Not a part of big corporate

◙ Investment amount.

India's large demographics availability is itself a huge opportunity for any business segment trying to establish a dominating position in the global market. Hence any multinational company, who wants to become a trend setter in upcoming time, has to have presence in India. So, startups and entrepreneurs in India have a huge home advantage and opportunities in this scenario.

Benefits of Startup India for youths

Search for funding to incubate the idea, Tax exemption to availed resources and infrastructure, Fast & Hassle free procedures to establish or parting with other can be the path or strategy of youth. The main objective of "Make in India" is to encourage investment and foster innovation in the country; also in order to achieve goals of Startup India, the Government has simplified the business registration process as well as the rules that govern the entire process.

As a result of this, entrepreneurs are able to start a company in India using eBiz portal 24/7. Even, simple licensing application can be done through self-certification or third party certification system. With the integrated online portal and less paperwork system, entrepreneurs do not have to worry about the administration burden and are able to focus more on running the companies.

In addition to an easier registration process, entrepreneurs have more options to invest in India as more sectors are included in the "Make in India" campaign. Also the Government has already started creating SEZs and corridors like industrial corridors and economic corridors across the country. Establishing the company in a correct corridor will enhance the business development environment and growth opportunities as well.

Conclusion

The Government is encouraging people to start doing business. And this will certainly boost Indian economy as well as GDP in upcoming decade.

Key steps proposed to change the dynamics for the startup space:

➤ Defining a Startup

➤ Offering tax concessions

➤ While introduce policy measures to improve operating environment

➤ Infrastructure support

➤ Financial support

➤ List of checks and balances with easy accessibility of resources

➤ Address practical issues pertaining to running a business (inspector raj etc.)

➤ Regulatory hurdle management

➤ Simple and transparent systems

➤ Support and promote creativity and innovation

➤ Incubator support

➤ Mentoring

As we see some of the Indian startup founders turning angel investors to support and encourage new innovation in India, we will surely see the ripple effect of their efforts in the long run. Governments should be well prepared to create a culture of startups to impact their cities, countries and citizens.

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SPECIAL ISSUES

REPORT ON PUBLIC HEALTH SPENDING IN INDIA

Context

Public Health Foundation of India recently released a study of State Health Accounts system conducted in six states. Key finding is that major share of total public money spent on State-level healthcare system is spent on human resource in forms of wages and salaries.

Health is a primary and most essential input for human resources development of a country. Various factors like low levels of education, lack of environmental sanitation and safe drinking water, under-nutrition, poor housing conditions, tobacco consumption, poverty, unemployment, unhealthy lifestyle, etc. have impact on health.

The health of population and individual is inextricably bound up with development. Overcoming health related barriers to the accumulation of human capital might be an important pre condition for achieving higher income level. Therefore, the expenditure on health is not only a means to the welfare of the society but also an end to the economic development.

Public Health System of India

Primary Healthcare has been defined as an essential healthcare which should be based on practical, scientifically sound and socially acceptable methods and technology. It should be made universally accessible to the individuals and the family in the community through their full participation. It is to be made available at a cost which the community and the country can afford to maintain at every stage of its development in a spirit of self-reliance and self-determination.

Primary healthcare is the first level of contact of the individuals, the family and the community with the national health system bringing healthcare as close as possible to where the people live and work. It constitutes the first element of the process of continuing healthcare, and this should get full support from the rest of the health system. This support would be required in the following areas:

(a) consultation on health problems; (b) referral of patients to local or other specialized institutions; (c) supportive supervision and guidance; and (d) logistic support and supplies.

Keeping in view the constitutional obligations, the Government of India has planned Primary healthcare centres. Thus based on population norms, the primary healthcare infrastructure has been developed in rural areas as a three-tier system –Sub-Centre, Primary Health Centre and Community Health Centre; and the services of these three centres are also assisted by the presence of Rural Family Welfare Centres. The Sub-Centres provide first level contacts between the primary healthcare system and the community. Tasks assigned to these health institutions vary from state to state. In some states the Auxiliary Nurse Mid-wifes (ANMs) stationed in sub-centres perform deliveries and refer only the complicated cases to PHCs or beyond. In some states the emphasis is on interpersonal communication so as to bring a behavioral change in maternal and child health, family welfare, nutrition, immunization, diarrheal control and control of communicable disease. The PHC is referral unit for about five to six Sub-Centres. Activities of PHC include curative, preventive and promotive healthcare as well as family welfare services. CHCs serve as first referral units (Furs) for four to five PHCs and also provide facilities for obstetric care and specialist consultations. According to norm, each CHC should have at least 30 beds, one operation theatre, X-Ray machine, labour room, laboratory facilities, and to be staffed by four medical specialists - surgeon, physician, gynaecologist and pediatrician.

What is the need for a public health response?

India is experiencing a rapid health transition. It is confronted both by an unfinished agenda of infectious diseases, nutritional deficiencies and unsafe pregnancies as well as the challenge of escalating epidemics of non-communicable diseases. This composite threat to the nation's health and development needs a concerted public health response that can ensure efficient delivery of cost-effective interventions for health promotion, disease prevention and affordable diagnostic and therapeutic health care.

Lacunas in Healthcare System in India

The delivery of health care largely rests with the States, Health being a state subject. The allocation of funds to health sector inter-alia is dependent on the overall resource availability of the Government, competing sectoral priorities, and also the absorptive capacity of the system.

As per Economic Survey 2015-16, the expenditure by Government (Central and State Governments combined) on health as percentage of Gross Domestic Product (GDP) for 2015-16 (BE) was 1.3 per cent.

As per 12th Five Year Plan document, total public funding by the Centre and States, plan and non-plan, on core health is envisaged to increase to 1.87 per cent of GDP by the end of the Twelfth Plan. The Draft National Health Policy 2015 envisages raising public health expenditure progressively to 2.5% of the GDP.

Another aspect of human capital is the health attainments of the population. The expenditure on health as a percentage of total expenditure on social services increased from 18.6% in 2013-14 to 19.3% in 2014-15 (RE) and 19.5% in 2015-16 (BE).

The allocation to States/UTs under National Health Mission by Centre Government for last three years is as under:

➤ 2013-14 - Rs. 19,989.01 Crore
➤ 2014-15 - Rs. 19,132.72 Crore
➤ 2015-16 - Rs. 16,213.09 Crore

Tribals and health system

To improve access to healthcare in tribal and hilly regions, the Government under National Health Mission has taken several steps which inter-alia includes:

➤ All the North Eastern States which have a high tribal population and other hilly states get funds under NHM from Government of India in the proportion of 90 (GoI Share):10 (State Share) as against share of funding in the ratio of 75:25 between Government of India and non-North Eastern States and non-hilly States.

➤ Relaxed norms for setting up of health facilities.

➤ Strengthening of Sub-Centre.

➤ Relaxed Norms for treatment of Specific Diseases

➤ Incentives are provided to health personnel serving in remote, underserved and tribal areas.

➤ Relaxing the norm of one ASHA per 1000 population to one ASHA per habitation in Tribal/hilly and difficult areas

➤ Relaxation of norms for setting up of sub-centres in difficult hilly areas by introducing a new norm of "Time to care". Under these norms, a sub centre can be set up within 30 minutes of walk from habitation.

India's Expenditure vis a vis Other nations

➤ India is one of the countries that spend the least on the healthcare sector with a public spending of around one per cent of GDP as compared to three per cent in China and eight per cent in the UK. In the Union Budget 2016-17 the total expenditure for health is only 1.62 per cent of the whole budget out of which the National Health Mission has a share of less than one per cent.
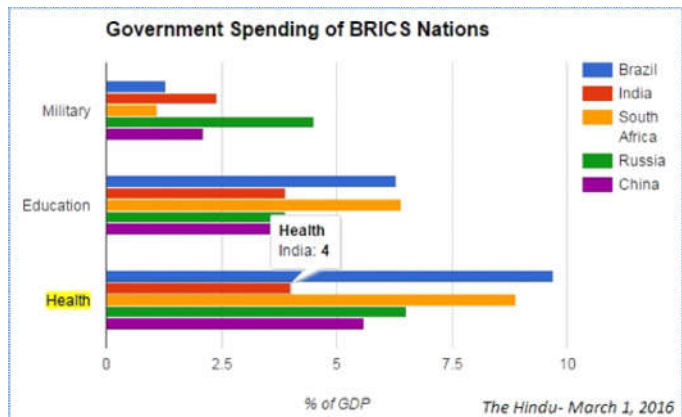

Fig. 4

➤ Amongst the BRICS nations India has lowest government spending on health sector.

Report on Public Health Spending

Health accounts monitor the flow of resources in a health system and provide estimates of spending and utilisation by various entities including both government and private sector. For the first time, Health Accounts Estimates have been conducted at the state level in India.

For the year 2013-14, PHFI in collaboration with the State Governments, conducted *a study of State Health Accounts of Kerala, Tamil Nadu, Odisha, Maharashtra, Madhya Pradesh and Punjab.*

Key findings of the Study are:

➤ Major share of total public money spent on State-level healthcare system is spent on human resource in forms of wages and salaries.

➤ Individually, Wages and salaries account for 86% in Punjab, 72% in Maharashtra, 65% in Kerala, 52.5% in Madhya Pradesh and 35% in Odisha.

➤ Despite of more expenditure on human resource, the per capita 'total cost of care' is mostly cheaper in the public sector than in the private sector.

➤ Maharashtra is an exception in this matter as in case of outpatient, the total cost incurred per outpatient is more expensive in public sector (Rs. 1082) than in private sector (Rs. 964). The reason for this may be the non-procurement of medicine by state government itself.

➤ The bulk of the total money circulating in Indian healthcare (69 per cent) comes from Out Of Pocket (OOP) payment by households- the OOP is the money which individuals pay out of their own. The same was true for health finances at the state level.

➤ There are considerable sources of funding, other than the state health department funds, such as local bodies. Maharashtra has highest share i.e. 23% of healthcare money, which is significantly high compared to Kerala, the next best State with share of 5.8%.

➤ Maharashtra has maximum disparities as 8.6% of total money spent on healthcare of state are spent on their workers and families. In other five states, this figure didn't exceed 1.5%.

Fig. 5

Analysis of Recent Report

The outpatient cost is largely driven by spending on medicines. In Tamil Nadu, more than 95 per cent patients get free medicines from the government. The cost of public sector outpatient treatment is hence lesser than private in Tamil Nadu because when the government itself procures medicines, it is 300 per cent cheaper than the market. Maharashtra is not doing that and hence the public sector cost is higher.

In all States studied, the total cost of an inpatient episode — which involves hospitalisation — is much higher in private sector compared to public sector.

In the past, some health economists have argued that the unit cost in public sector would be higher than private when subsidies that are provided in the public sector are accounted for. If that would have been the case, it makes sense for the government to purchase healthcare from the private sector rather than providing it directly via government institutions. But we now have evidence which contradicts that theory as public sector costs are much lesser.

Contrary to the popular perception that only the State health department funds healthcare at the State level, the findings show important contribution by other sources too. For instance, in Maharashtra, 23 per cent of healthcare money comes from local bodies, which is significantly high compared to Kerala, the next best State, where local bodies contributed 5.8 per cent.

Firms pay a considerable amount of money in Maharashtra — constituting 8.6 per cent of the total money spent on healthcare in the State — to provide healthcare for their workers and

families, signifying high spending for a few people. This is because Maharashtra is the major financial centre of the country. In other five States, this figure didn't exceed 1.5 per cent.

Public health is a state subject. Under the National Health Mission, support is being provided to States/UTs to strengthen their healthcare systems to provide accessible, affordable and quality health care to all the citizens. Moving towards Universal Health Coverage wherein people are able to use quality health services that they need without suffering financial hardship is a key goal of 12th Plan.

With this report, it has been established that outsource healthcare to private sector is not the right option. As findings of the study clearly shows that in general total cost of inpatient episode (with or without hospitalization) is much higher in private sector compared to public sector.

How can we build capacity for an efficient public health response?

Health challenges required to be understood and acted upon. Concerted health research, policy development and analysis, programme development and evaluation, health systems organization, models of health care financing and operationalize scientific research are aids to this process. They assess and highlight the need for action, while providing insight for possible solutions.

Education and training in public health needs to be inter-disciplinary in content so that the pathways of public health action are multi-sectoral. Public health education must include subject areas like epidemiology, biostatistics, behavioral sciences, health economics, health services management, environmental health, health inequities and human rights, gender and health, health communication, ethics of health care and research. The interventions proposed need to be evidence-based, context-specific and resource-sensitive.

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ENERGY CRISIS IN INDIA & HYDRO POWER PROJECTS

Context

PM Modi dedicated three flagship 800 MW Hydro Power Station of NTPC-Koldam, 520 MW Parvati Project of NHPC and 412 MW Rampur Hydro Station of SJVNL projects to the Nation in Mandi, Himachal Pradesh. While appreciating the contribution of Public sector companies in country's growth, PM said that these hydro projects will bring prosperity to the State of Himachal and other parts of the nation.

Introduction

To keep the momentum of economic growth high, availability of uninterrupted power supply is a must. For growth of every Indian industry, be it small scale or large scale and be it service sector or manufacturing sector, there is a need of electricity. Rapidly increasing energy demand and growing concern about economic and environmental consequences call for effective and thorough energy governance in India.

There are several types of power generation source of India, which can be classified under following three heads viz. Thermal Power, Nuclear Power & Renewable Energy:

Recently Prime minister dedicated three **Hydro Electric power projects** to the nation. These include **800 MW Hydro Power Station of NTPC- Koldam, 520 MW Parvati Project of NHPC** and **412 MW Rampur Hydro Station of SJVNL.**

Himachal Pradesh has the highest Hydro Power installed capacity in India. For states like Himachal Pradesh, Uttrakhand, Jammu & Kashmir, Sikkim and North-East India, hydro power remains important. Hydro power plays an important role in the economy of these regions. It provides electricity to the national grid. These projects involve lot of costs such as social, environmental and opportunity costs.

Fig. 6

India's Energy Scenario and energy balance

India has one of the world's fastest growing energy markets and is expected to be the second-largest contributor to the increase in global energy demand by 2035, accounting for 18% of the rise in global energy consumption. Given its growing energy demands and limited domestic fossil fuel reserves, the country has to expand its renewable and nuclear power industries. India has the world's fifth largest wind power market and plans to add about 175 GW of renewable power capacity by 2022. This include 100GW of solar energy and 60 GW of wind energy. It also envisages increasing the contribution of nuclear power to overall electricity generation capacity from 4.2% to 9% within next 25 years.

India's substantial and sustained economic growth is placing enormous demand on its energy resources. The demand and supply imbalance in energy sources is pervasive requiring serious efforts by Government of India to augment energy supplies.

Energy security has emerged as an important policy issue all over the world. Global energy markets have relied heavily on fossil fuels like coal, crude oil and natural gas, which provide almost 80 per cent of the world's supply of primary energy.

Renewable energy can help in filling the gap. Renewable energy uses energy sources that are

continually replenished by nature—the sun, the wind, water, the Earth's heat, and plants. Renewable energy technologies turn these fuels into usable forms of energy—most often electricity, but also heat, chemicals, or mechanical power.

Energy policy framework

The Indian government as a whole plays an indispensable role in the energy sector through state owned enterprises, public policy and market regulation, indirect guidance and personal networks. To grasp the intertwined dynamics in India's energy policy framework, comprehending the individual role of each ministry and government agency is important.

Policy context

India's energy policy framework can be understood by looking at policy contexts in which policy objectives and concepts are laid out. Policy objectives

There are three major policy objectives that India pursues:

➤ **Energy access:** Access to energy is the foremost goal in India's energy policy making, as nearly one-quarter of the population lacks access to electricity. This implies ensuring the supply of adequate and reliable energy to the Indian population amid growing energy demand, bolstered by economic growth.

➤ **Energy security:** Energy security is driven by increasing dependence on imported fuels, which is crucial to meet the India's huge energy demand. Increased import dependence also exposes the country to greater geopolitical risks and international price volatility

➤ **Mitigation of climate change:** Finally, India is dedicated to the mitigation of climate change, although overcoming energy poverty and ensuring economic and social development remains a top priority.

All three objectives are closely related, but sometimes conflict with one another and are derived from the reality in India. Thus, it is challenging for India to maintain a balanced approach in pursuit of all three objectives.

State of Hydro power electricity in India

Currently Hydro-electric power generation shares around 16% of total power generation and there is need to enhance it. Hydro power projects in India can be classified into three categories on the basis of power generation capacity:

➤ Mini Hydro Power Projects (Below 2MW)

➤ Small Hydro Power Project (2MW to 25Mw)

➤ Large Hydro Power Project (Above 25MW)

Other classification is based on power generation methodology:

➤ Storage kind of Hydro Power Project, which holds the water and make a water head (potential energy due to stored height of water) to generate power e.g. Rihand, Bhakra etc.

➤ Newly developed, **run of the river Hydro power projects**. In this power is generated from flowing water. There are dams for each of the run of the river Hydro power projects and from these dams water is diverted into a tunnel and that tunnel comes back to the river a few kms downstream. The head which is a point where the water enters and exits is used to generate power.

How will the recent projects change the Energy Crisis Situation?

Three Hydro Electric Power Projects

➤ 800 MW Hydro Power Station of NTPC-Koldam, **Himanchal Pradesh**

➤ 520 MW Parvati Project of NHPC, **Himanchal Pradesh**

➤ 412 MW Rampur Hydro Station of SJVNL, **Himanchal Pradesh**

Appreciating the contribution of Public sector companies in country's growth, PM Modi said that these hydro projects will bring prosperity to the State of Himachal and other parts of the nation.

➤ **NHPC's Parbati-III Power Station** is a run of the river scheme having a 43m high rockfill dam, underground Power House and 10.58 km long water conductor system. A net head of 326 meter is utilized to run four vertical Francis turbines with an **installed capacity of 520 MW (4x130 MW)**. The power plant is designed to generate 1963.29 Million Units annually. The power generated from the Parbati-III Power Station is distributed to beneficiary states i.e. Himachal Pradesh, Jammu & Kashmir, Punjab, Uttarakhand, Uttar Pradesh, Haryana, Delhi, Rajasthan and Union Territory of Chandigarh. The Power Station is supplying 13% free power to home state i.e. 12% as home state share and 1% for Local Area Development fund. The completion cost of the project is around Rs 2600 crore and as on

30.09.2016 the total power generation is 1880 MU with revenue realization of Rs 816 crore.

➤ **NTPC Koldam -** With commencement of generation from four 200 MW units, NTPC-Koldam has achieved capacity of 800 MW and provides peaking capacity to the Northern grid. It shall annually generate 3054 GWh electricity at 90% dependable year basis. Twelve percent of the electricity generated from Koldam is being supplied to the home state Himachal Pradesh free of cost while 1 percent to the state on account of Local Area Development fund. All the Project Affected Families are being provided 100 units of electricity every month free of cost which accounts for 0.62 percent of the total generation. Thus a total 13.62 percent of electricity generated from the plant is supplied free of cost to Himachal Pradesh, remaining power supplied to other beneficiaries namely Delhi, Haryana, Punjab, Rajasthan, Uttar Pradesh, Himachal Pradesh, Jammu & Kashmir, Uttrakhand and Chandigarh.

➤ **SJVN's Rampur Project (412MW) in Kullu district** will be operated in tandem with Nathpa Jhakri Hydro Power Station (HPS). This project will provide 13 per cent free power to the state of Himachal Pradesh.

How Beneficial are Hydro power projects (HPP)?

➤ **Peaking Power:** key benefit of HPP is the peaking power. Peaking power means power plants that generally run only when there is a high demand, known as peak demand, for electricity. The demand of power goes up during morning and evening, and goes down during afternoon and night. There are also daily and seasonal variations. The thermal power project cannot be restarted when the demand goes up and shutdown when demand goes down. Whereas this can be done in Hydro power projects. Because of the capacity of Hydro power projects to be able to start and shutdown in short time it can provide during peaking hours.

➤ **Clean and green source of energy:** Hydro power projects are clean and green source of energy. It is a renewable form of energy source, which makes it sustainable.

Issues involved

➤ **Availability of Water:** Generation of Hydro power depends on the availability of water. When water is not available in the lean season, in summer and in drought year the generation drops.

➤ **Social Impact:** Lot of people get displaced, livelihood and resources are affected.

➤ **Siltation:** There is the issue of Siltation and maintenance of Hydro power projects. When we don't allocate proper costs for maintenance then the generation suffers. Silt reduces the storage capacity and proportionally the power generation also goes down.

➤ **Performance Issues:** There are issues of generation performance. 89% of India's installed capacity does not generate power at the promised level.

➤ **Carbon Footprints:** Hydro power projects do not consume fuel and it is assumed that there is no carbon foot print which is not correct. The World Commission on Dams has shown how the power generated particularly in tropical countries generates Methane. In one molecule of Methane there is 22 times more potent Green House Gas than CO_2.

➤ **Disaster related impacts:** Most of the new projects are coming up in Himalayan region which is vulnerable to disaster in terms of earth quake, landslides, erosion, and flash floods. In the era of climate change there are glacial lake outburst flood (GLOF) which is because of the lakes which are created by the melting of glaciers which consists of boulders and silt.

➤ **Environment Impacts:** Hydro power projects involve deforestation which reduces the carbon sinks and thereby putting back more carbon into the atmosphere.

➤ **Droughts:** The frequency and intensity of Droughts will increase in the coming years. The rainfall patterns are changing. This will impact the power generation capacity of the Hydro power projects.

➤ **Cost and Time overruns:** Every Hydro power projects are plagued by cost and time overruns. The reason is lack in the appraisal mechanism particularly geological appraisal.

Roadmap for accelerating responsible hydropower development in India

➤ **Governance framework:** A nation needs to have an overarching policy framework, specific sector strategies, and clear and transparent processes for accelerating hydropower development. Standardised processes and efficient inter agency governmental coordination reduces unpredictability to create a better climate for potential investors.

➤ **Benefit-sharing framework:** The benefits and negative effects of natural resource development are often unevenly distributed, benefit-sharing mechanisms and mitigation measures are crucial for sustainability and stability in development. Benefit-sharing is a commitment by the government and the developer to share the monetary and nonmonetary returns with stakeholders. An appropriate benefit-sharing mechanism ensures social stability and also aligns a country's national strategy with the local needs.

➤ **Facilitating investments and financing:** To broaden investment avenues, the government needs to facilitate optimum risk allocation and often, on a case specific basis, better upside to developers. Furthermore, the PPP framework needs to be designed considering key factors needed to develop commercial hydropower projects such as capital, capability and credibility.

➤ **Facilitate market development:** Policies targeted at market development play a crucial role in channelizing investments and private sector participation in hydropower development like any other sector.

➤ **Technical capacity development:** Hydropower development involves significant challenges on account of terrain and geology. The solution to such challenges requires capacity-building of the agencies involved as well as the introduction of modern techniques and technologies.

Way Forward

Efficient coordination for implementation of policy goals and targets, Planning for integrated river basin development, Transparent Project allocation procedures, Focus on responsible development, Public private people participation, State-of-the-art investigation and construction techniques, Fiscal incentives and Benefit-sharing with Affected Peoples will harvest good dividend in Hydropower generation.

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INDIA FALLS SHORT IN FEMALE LITERACY

Context

Recently New York-based International Commission on Financing Global Education Opportunity released a report on female literacy around the globe. According to the findings, India's school education system is under-performing in terms of quality when compared to its neighbours, Pakistan, Bangladesh and Nepal.

Introduction

Literacy and level of education are basic indicators of the level of development achieved by a society. Spread of literacy is generally associated with important traits of modern civilization such as modernization, urbanization, industrialization, communication and commerce. Literacy forms an important input in overall development of individuals enabling them to comprehend their social, political and cultural environment better and respond to it appropriately.

Higher levels of education and literacy lead to a greater awareness and also contributes in improvement of economic and social conditions. It acts as a catalyst for social upliftment enhancing the returns on investment made in almost every aspect of development effort, be it population control, health, hygiene, environmental degradation control, employment of weaker sections of the society.

When India gained independence, four out of five of her citizens could not read. Thanks to various initiatives and interventions over the years, three out of five Indians can now read and write. The fast growth in literacy in the recent decades even in the face of huge additions to the population depicts a remarkable positive trend.

However, it is also the fact that out of about 87 crore illiterate adults in the world, 30 crore are Indians. At the same time, we cannot lose sight of the fact that India, in terms of quality of female literacy when compared to its neighbours, Pakistan, Bangladesh and Nepal is under performing as per the new survey.

New York based International Commission on Financing Global Education Opportunity (**or Education Commission**) released a data from new research on female literacy which shows that India's school education system is under-performing in terms of quality when compared to its neighbours, Pakistan, Bangladesh and Nepal.

The research studies changes in female literacy over a number of schooling years.

What does the recent report conveys?

In the recent findings, New York based International Commission on Financing Global Education Opportunity studied 'changes in female literacy over a number of schooling years'.

The data has been collected with a specific focus on girls, using data from Nationally Representative Demographic and Health Surveys (DHS) - one of the most comparable data source on living standards in the developing world.
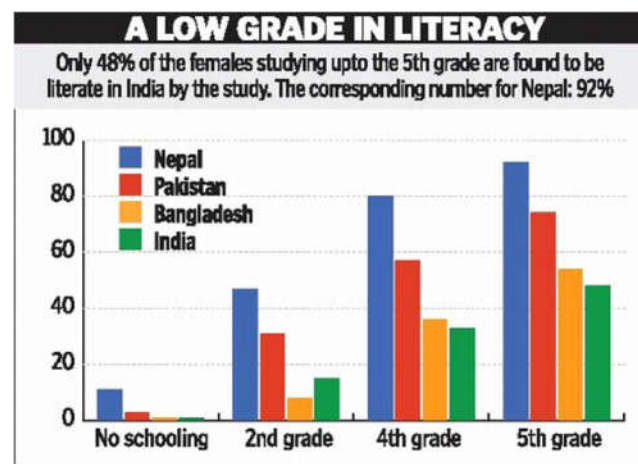

Fig. 7

Findings of the study:

➤ As per the study, the proportion of women who completed five years of primary schooling in India and were literate was 48% which is much less than 92% of Nepal, 74% of Pakistan and 54% of Bangladesh.

➤ If countries are ranked by the earliest grade where **at least half of the women are literate** — a proxy for quality of learning — **India ranks 38th among the 51 developing countries.**

➤ Indonesia, Rwanda, Ethiopia and Tanzania — all rank higher than India. Ghana is placed at the bottom. According to this study, just seven

per cent of female students in Ghana can read after attaining their sixth grade.

► Female literacy around the world is improving. Female literacy rates went up by 1 to 15% after completing two years of schooling. Corresponding numbers for Pakistan and Nepal were three to 31 per cent and 11 to 47 per cent respectively.

► This implies that schooling is roughly twice as productive at generating literacy for women during the early grades in Pakistan when compared to India. Or, it could also mean that Indian schools are much more lenient about promoting students who cannot read.

► Over the years, most countries studied made improvements in the number of girls finishing primary school, which should lead to more literate women. But for girls who don't finish primary school, the trend is not encouraging: researchers found that little to no progress have been made in increasing basic literacy for the girls who drop out.

► Millions of women have spent multiple years in school and emerged unable to read a simple sentence" and "it's not getting much better over time.

Adult female literacy by highest grade attained

Grade	No schooling	2nd grade	4th grade	5th grade
Nepal	11%	47%	80%	92%
Pakistan	3%	31%	57%	74%
Bangladesh	1%	8%	36%	54%
India	1%	15%	33%	48%

The table shows % of female literate who have studied upto that grade. For instance, only 15 per cent of Indian women who studied till Class 2nd can read a sentence (or literate).

Rank

Countries are ranked by the earliest grade at which at least 50% of women are literate. India ranks 38th among 51 developing countries.

Country	Rank
Nepal	3
Pakistan	8
Bangladesh	24
India	38

Government Initiatives and Improvement in Female Literacy

► There has been a marked improvement in female literacy as per Census 2011. Though the male literacy is still higher at 80.9 percent than female literacy at 64.6 percent, the increase has been 10.9 percent compared to 5.6 percent of the males.

► The new Scheme Beti Bachao Beti Padhao, for promoting survival protection and education of girl child aims to address the issue of declining figures through a mass campaign targeted at changing social mindset and creating awareness.

► The right of Children to free and compulsory Education (RCE) act 2009 implemented under Sarv Shiksha Abhiyan aimed to increase the quality as well as accessibility of elementary Education in India.

► Economic Survey points out that the overall Standard of Education in India is below global Standards. The Programme for International Students Assessment (PISA) which measures the knowledge and skills of 15 year-olds has rated Tamil Nadu and Himachal Pradesh only higher to other States in the Country.

► The inadequacy of human capital at the base of the pyramid leading to a huge backlog in basic skills put become a big impediment in India's growth as a result of the changing demography and declining child population. The Padhe Bharat Badhe Bharat initiative to create a base for reading, writing, and math fluency can be effective if the local administration is fully involved and sensitized in it. .

► India has about 100 million young people in the age group of 15-18 years, majority of which could land up in unorganized sector as there are educational and age requirement for entry into most vocational skills Programmes. There is a need for research into the type of knowledge or skills required to address this issue.

In order to build capacity in secondary schools on par with expanded primary enrolments, several schemes like the

► Mid-Day Meal scheme

► Rashtriya Madhyamik Shiksha Abhiyan

► Model School Scheme

► Saakshar Bharat/Adult Education have also been implemented in the country.

The Indian higher education system is one of the largest in the world with 713 universities, 36,739 colleges, and 11,343 diploma-level institutions. To make Higher Education to be futuristic envision areas that will generate future employment opportunities, there is a need to match the supply with demand and dovetail education policy to employment opportunities.

Way forward

Illiteracy deprives people not only of economic development but also of all benefits of education, reading, writing, etc. remaining within the darkness of ignorance, poverty and impoverishes.

It is important that the Government of India rises up to the occasion and take all possible steps for educating women all around the country making literacy a compulsory obligation of every citizen without which he/she will be penalized.

Unless all citizens are literate or educated they cannot ever read newspaper, circulars, notices, advertisements, posters, and letters from near and dear ones. This will compel the illiterate masses to be deprived of 90% benefit of development, entertainment, sports and games, medical prescription, operate cell phone, T.V and computer.

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NUCLEAR TRIAD IN INDIA: MEANING, SIGNIFICANCE, IMPLICATIONS ON GEOPOLITICS

Context

India has quietly completed its nuclear triad by inducting the indigenously built strategic nuclear submarine INS Arihant into Indian Navy Service. INS Arihant was commissioned by Navy Chief Admiral Lamba in August this year.

Introduction

Treaty on the Non-Proliferation of Nuclear Weapons (NPT) states that there are five "official" nuclear-weapon states in this world i.e. the United States (US), the United Kingdom (UK), Russia, France and China. India, Pakistan, Israel and North Korea are in the possession of nuclear weapons outside the ambit of NPT.

India carried out its first nuclear test in 1974. Subsequently, in 1998 India had carried out a series (five in total) of nuclear tests and now India is known to have weaponries of nuclear technology.

The process of weaponisation is a complicated engineering activity and could involve various activities such as deciding on the yield necessity, device design, and material acquisition and processing and many other processes. All these activities would heavily depend on the *type of weapon to be produced* which in turn would depend on the nature of the *weapon delivery system*.

The warhead would be essentially designed based on the weapon system which ultimately would deliver the munitions on the target. Alternatively, the modern day warheads are compressed in size and hence in a position to offer different options for the delivery systems too. Basically, all such warheads could be delivered from ground, aerial or submarine based platforms. Such delivery mechanisms are commonly known together as nuclear triad in the Indian context.

Why was it in the news recently?

Recently, India has completed its nuclear triad by inducting the indigenously built strategic nuclear submarine INS Arihant into service. It will also make India the sixth country in the world to field nuclear submarines with ballistic missiles.

What is a Nuclear Triad?

Fig. 8

Nuclear Triad means country's ability to launch Nuclear Weapons from all of its platforms i.e. land, water and air. It refers to a nuclear arsenal which consists of three components: **strategic bombers (airplanes), inter-continental ballistic missiles (ICBMs),** and **submarine-launched ballistic missiles (SLBMs).**

Why are submarines so important?

A submarine is the quietest military platform and extremely tough to detect. Their main cover is their ability to move stealthily under water and keep an eye on enemy movement of vessels. Submarines are the most potent military platforms currently available even ahead of aircraft carriers which need a large entourage to protect it.

The nations which possess nuclear weapons, base their second strike capability (ability to strike back after being hit first by nuclear strike) on nuclear powered ballistic missile submarines. This underscores the importance of INS ARIHANT.

What is INS?

INS which stands for 'Indian Naval Ship' is affixed to a ship only after it is inducted into service.

INS Arihant

INS Arihant empowers India with the ability to respond to nuclear strikes from land, air, and sea-based systems and provides the critical second-strike capability in accordance with the "no-first-use" nuclear policy.

➤ INS Arihant, an indigenously built 6000 tonnes of weighs, powered by an 83 MW pressurized light water nuclear reactor is a nuclear submarine capable of carrying Nuclear tipped ballistic missiles, the class referred to as **Ship Submersible Ballistic Nuclear (SSBN).**

➤ SSBNs are designed to prowl the deep ocean waters carrying nuclear weapons and provide an assured second strike capability – the capability to strike back after being hit by nuclear weapons first.

➤ The vessel will be armed with the K-15 Sagarika missiles with a range of 750 km and eventually with the much longer range K-4 missiles (with a range of 2200 miles) being developed by the Defence Research and Development Organization (DRDO).
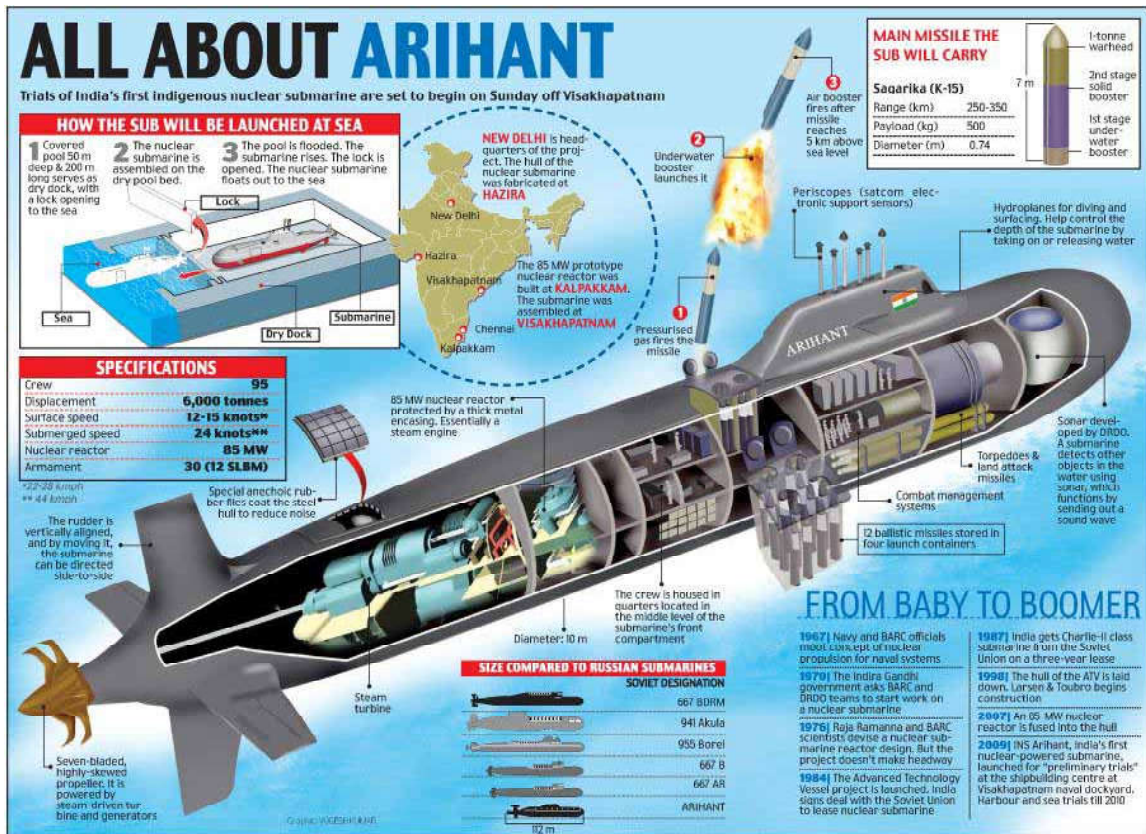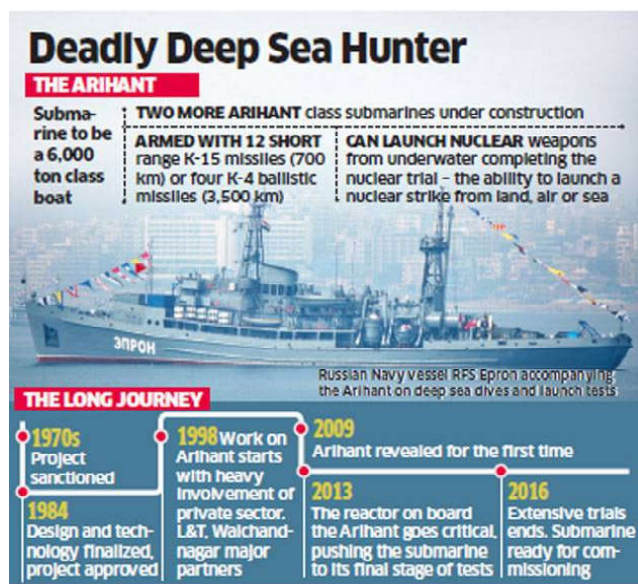

Fig. 9

➤ The project for building a strategic vessel started in 1980s as the Advanced Technology Vessel (ATV) and was launched in 2009. Since then it was put to extensive sea trials and the reactor on board went critical in 2013.

➤ This SLBM will form a crucial leg of India's nuclear triad, and also the most credible and hardest to detect. It will also make India the sixth country in the world to field nuclear submarines with ballistic missiles.

Other Capabilities

➤ **ICBMs (Land Based):** India possess land based missile upto ICBM category. This includes AGNI series, Prithvi series, Prahar Missile, Shaurya Missile, Supersonic Brahmos and Subsonic Nirbhay.

Fig. 10

➤ **Strategic Bombers (Airplanes):** SEPECAT Jaguar which is an orthodox single-seat, swept-wing, twin-engine monoplane design, with tall tricycle-type retractable landing gear attack aircrafts capable of carrying Nuclear bomb being operated by Indian Air Force. Su-30MKI and Rafale can also be used to deliver nuclear bomb. Indian Air Force doesn't operate a dedicated bomber squadron like other three nuclear triad nations (China operates Xi'anh 6 which are 1960s era Soviet bomber and Chinese had been producing it since).

Significance of India's Nuclear Triad in the current Geopolitical Environment

➤ The reason for having such three branched capability is to significantly reduce the possibility of the destruction of the entire nuclear architecture of the state in the first nuclear strike by the enemy itself. The triad provides the potency to the country which has been under the nuclear attack to respond swiftly by nuclear means. Such system essentially increases the deterrence potential of the state's nuclear forces.

➤ Nuclear powered Ballistic Missile Submarines (SSBN) is grated as the finest delivery platforms. SSBNs are less vulnerable to enemy attack. They can operate in vast ocean expanses with minimal exposure. Hence, SSBNs are extremely useful as retaliatory/second strike weapons. They do suffer from some vulnerability like the destruction at the harbour or at homeport or from Anti-Submarine Warfare (ASW). However, in relative terms they could be considered as safer option than bombers or ballistic missiles.

➤ The presence of Arihant will hopefully act as a deterrent against threats of nuclear aggression by China and Pakistan. While a nuclear strike will certainly be horrific, there is solace in the fact the world's largest democracy will be able to survive and respond to threats appropriately.

➤ India has nuclear neighbours namely China and Pakistan. In the past India has fought wars with both these states and still has many differences including unresolved border agreements. It is important to recognize the fact that due to conflict in interest this region has very high possibility of breaking conflict.

➤ China has adopted NFU policy well before India in 1964; with the affirmation not to be the first to use nuclear weapons "at any time or under any circumstances". China has reaffirmed its NFU policy in 2009. However, it is perceived by many that China cannot be trusted.

➤ On the other hand, India's has most conflicting border issues with Pakistan. Pakistan has not declared its nuclear doctrine and it does not subscribe to **No First Use (NFU)** policy. However, this should not be necessarily understood as a first use doctrine.

➤ At the same time the always volatile political situation in Pakistan, their tacit support to use of terrorism as a military option (both peacetime as well as wartime) against India and mostly military control over the nuclear button makes circumstances intricate. The veracity of the safety of their nuclear arsenal remains doubtful.

Conclusion

➤ Modern day warfare is multidimensional, essentially fought by using weapon systems on land, sea and air. For a peninsular state like India which shares its boundaries with neighbours having nuclear-weapons complex, it is essential to remain prepared to fight a multidimensional war.

➤ It is important to note that for a nuclear weapon state more than the quantity and types of platform, a correct mix of platforms is very essential. And also to have platforms which can match our adversary but, at the same time particularly in the context of nuclear weapons it is important to develop a system which matches with our doctrine.

➤ India is a nuclear state because of the complicated security milieu in the sub continent. Understanding the dangers of nuclear weapons and the type of paranoia they could create both regionally and globally, India has by design adopted a policy to restraint which involves minimum deterrence and NFU as the two vital pillars of its nuclear policy.

➤ It is also important to note that nuclear strategy can never be static and triad should not be viewed as an end in itself. Space is finding increasing acceptance as an additional dimension of warfare. It could be premature to talk of orbital weapons now but it is difficult to predict the future. There are laws to restrict any use of space for using Weapon of Mass Destruction (WMDs); however that does not fully guarantee that strategic nuclear strike missions in future would not have a space based platform.

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ANTI TRAFFICKING BILL 2016

Context

The Minister of Women & Child Development has released the draft "Trafficking of Persons (Prevention, Protection and Rehabilitation) Bill, 2016". The Bill aims to create a strong legal, economic and social environment against trafficking of persons and related matters.

What is Human Trafficking?

➤ Human Trafficking means, Trafficking in Persons by means of the threat or use of force or other forms of coercion, for the purpose of exploitation.

➤ Exploitation shall include, at a minimum, the sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs.

Human Trafficking In India

As per official estimates, 15 children go missing every hour in India and 8 are never found. As per the data from Home Ministry, 1379 cases of human trafficking were reported from Karnataka in the period of four years, in Tamil Nadu the number is 2,244 whereas Andhra Pradesh has 2,157 cases of human trafficking. Delhi is the hotspot for illegal trade of young girls for domestic labour, forced marriage and prostitution.

Human trafficking outside India, although illegal under Indian law, remains a significant problem. People are frequently illegally trafficked through India for the purposes of commercial sexual exploitation and forced/bonded labour. Although no reliable study of forced and bonded labour has been completed. NGOs, Estimate this problem affects 20 to 65 million women and girls are trafficked within the country for the purposes of commercial sexual exploitation and forced marriage especially in those areas where the sex ratio is highly skewed in favour of men. A significant portion of children are subjected to forced labour as factory workers, domestic servants, beggars, and agriculture workers, and have been used as armed combatants by some terrorist and insurgent groups.

India is also a destination for women and girls from Nepal and Bangladesh trafficked for the purpose of commercial sexual exploitation.

Many are sold into forced marriage or bonded labour to work in middle class homes as domestic servants, in small shops and hotels or confined to brothels where they are repeatedly raped.

What is the estimation of the Bill?

➤ The Bill is the country's first ever anti-trafficking law promises to treat survivors of trafficking as victims in needs of assistance and to make rehabilitation a right for those who are rescued. It also prioritizes survivors' needs and prevents victims such as those found in brothel raids from being arrested and jailed like traffickers.

➤ Its main purpose is to unify existing anti-trafficking laws, increase the definition to cover labour-trafficking and not just sex-trafficking, as earlier legislations like the 'Immoral Trafficking (Prevention) Act of 1956' mentions.

The provisions of the Bill:

➤ The draft Bill has taken into account the various aspects of trafficking and its punishments as defined in section 370-373 of Indian Penal Code, 1860 and aims to include other offences/ provisions which are not dealt with-in any other law for the purpose of trafficking, such as:

◘ Penal provisions for the disclosure of identity of the victim of trafficking and witness.

◘ Use of narcotic drug or psychotropic substance or alcohol for the purpose of trafficking.

◘ Use of chemical substance or hormones for the purpose of exploitation.

➤ The proposed draft Bill aims to place dedicated institutional mechanisms at District, State and Central level. It also envisages a designated Agency for the investigation of offences. It provides for Protection Homes and Special Homes for short term and long term rehabilitation support.

➤ For speedy trial with a view to increase prosecution and to reduce the trauma faced by the victims, the proposed draft Bill provides for establishing Special Courts in each district and experienced Special Prosecutors. Recovery of back wages and other monetary losses of the victim of trafficking is also proposed.

➤ The draft Bill provides for mandatory reporting within 24 hours by a Police Officer, Public servant, any officer or employee of Protection Home or Special Home having custody of the victim of trafficking to the District Anti-Trafficking Committee or in case of child victim to the Child Welfare Committee.

➤ For the effective implementation of the proposed Act and for the welfare and rehabilitation of the victims an Anti-Trafficking Fund will be created.

➤ The draft Bill has also taken into its ambit the 'placement agencies' by making mandatory for them to also register for the purposes of this Act.

➤ Clause (1) of article 23 of Constitution of India prohibits trafficking in human beings and begar and other similar forms of forced labour, making a contravention of the same a punishable offence.

➤ Article 21 of Constitution of India guarantees that no person shall be deprived of his life or personal liberty except according to the procedure established by law.

➤ The Government of India has ratified the United Nations Convention on Transnational Organised Crime and its three Optional Protocols, including the Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially women and children.

The new list of offences includes trafficking for the purpose of bonded labour, begging, bearing a child, under the pretext marriage, using as a human shield or child soldiers.

The penalty for most of these crimes is a fine of Rs 1 lakh to 10 lakh and a jail term of anywhere between seven years to life imprisonment. Similar offences include causing serious injury to the victim that could lead to her death or suicide or causing life threatening illness or sexually transmitted diseases. The penalty and sentences are enhanced in case of repeat offenders.

Lacunas in the Bill

➤ There is not disclosure about the programmes for social integration of the victim, which should be the important aspect.

➤ There is neither indication of the agency which will provide for the rehabilitation of the victim nor revels about the security of the victims in the shelter homes.

➤ Although it included sex and labour trafficking, the draft bill shows concealment about forced marriages and removal of organs.

➤ India's trafficking recovery laws and policies are piecemeal and haphazardly applied moreover, lack of coordination among the police and government agencies. for eg. the holding facilities for rescued trafficked girls often have miserable conditions and may be worse than the brothels in which they had previously been housed.

Though this Bill has mentioned many positive aspects to limit the human trafficking, a lot should be done before it can be regarded as a comprehensive, positive piece of legislation that will empower survivors of trafficking and give them the relief of betterment and opportunity of the rehabilitation.

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EASE OF DOING BUSINESS
REPORT 2017 - WORLD BANK

Context

World Bank's Doing Business Report (DBR) 2017 has been released recently which has placed India at 130th rank.

Launched in 2003, the Doing Business Report (DBR) is an annual survey-based report that aims to measure the actual costs of doing business in 185 countries. The resultant study produces a quantitative assessment of each country's regulations for 'starting a business, dealing with construction permits, employment of workers, registering property, access to credit, protecting investors, paying taxes, trading across borders, enforcing contracts, securing an electricity connection, and closing a business'.

Data:

The World Bank's Doing Business Report (DBR) sees India marginally improve its 'Ease of Doing Business' ranking by just one spot, moving to 130th from 131st last year. New Zealand topped the Doing Business Rankings this year, displacing Singapore which fell to second place. Along with India, all the BRICS nations exhibited subdued performances as Brazil fell to 123rd from 121st in 2016, Russia fell to 40th from 36th in 2016, and South Africa slipped two places to 74th from 72nd in 2016. China marginally improved from 80th in 2016 to 78th.

With respect to India, the new ranking reflects the country's progress in just 2 out of 10

Fig. 11

parameters, thereby exposing clear gaps between government's reform initiatives and actual implementation.

India's performance in Ease of doing business index-2017

➤ In India, these reforms cover the following categories – single-window systems, tax reforms, construction permits, environment and labor reforms, inspection reforms, access to information and transparency, and commercial dispute resolution enablers. This year, newly divided states, Andhra Pradesh and Telengana, jointly ranked at the top while last year's top ranker, Gujarat, slipped to third place.

➤ The cities of Delhi and Mumbai, the focus of the World Bank's Doing Business survey, belong to relatively low performing states with Delhi state coming at 19th and Maharashtra state at 10th, respectively, in this year's state-wide assessment.

   ◘ India's overall ranking improved by one notch to reach 130 as improvements were observed in only 2 parameters securing an electricity connection and enforcing contracts. India's ranking deteriorated in five parameters

   ◘ Dealing with construction permits, access to credit, protecting minority investors, paying taxes, and trading across borders. No change was observed in the parameters of starting a business, registering property, and resolving insolvency.

➤ Some of the achievements recognized by the World Bank for this past year include the establishment of an electronic system for companies to pay employee insurance contributions, easier procedures for exporting and importing, and new arbitral mechanisms for resolving commercial disputes.

➤ Unfortunately, what really undercut India's overall score this year was the country's

abysmal performance in the post filing index criteria. According to the World Bank, this criteria was included for the first time under the parameter of "paying taxes", and is the product of a review initiated in the Doing Business Report for 2015.

➤ Post filing index measures what happens after a firm pays taxes, such as tax refunds, tax audits, and administrative tax appeals. In the DBR 2017 survey, India scored 4.27 out of a maximum score of 100 in the 'post-filing index' criteria.

What are the advantages and limitations mentioned in the doing business report?

Advantages:

➤ The methodology of the DBR focuses on an on-the-ground assessment achieved through field surveys and interviews with corporate lawyers, businesses, and company executives which is critical in nature.

➤ Whether the government's policy record translates into real benefit for the stakeholders involved. India now realizes the need for a transparent and constant feedback mechanism to close the yawning gap between policy formulation and implementation.

Limitations:

➤ The DBR's methodology betrays certain limitations when evaluating a country as large as India. India is a federal democracy and regulations differ across the country according to respective state laws and institutions. The World Bank's DBR only evaluates ease of doing business in Delhi and Mumbai, which do not accurately represent the country's business conditions.

➤ In fact, in the latest state-by-state ranking for ease of doing business (a joint initiative of the government's Department of Industrial Policy and Promotion [DIPP] and the World Bank), 16 Indian states were found to have implemented more than 75 % of the 340 reforms proposed by the DIPP's Business Reform Action Plan in 2015-2016.

Expected reforms in India in the year 2017-2018

The government has highlighted some of the reform measures which should boost India's Growth Implications:

➤ Implementing the Insolvency and Bankruptcy Code by notifying regulations and institutionalizing proceedings at the National Company Law Tribunals;

➤ Implementing the Goods and Services Tax (GST) by April 1, 2017 to replace the country's convoluted indirect tax structure;

➤ Implementing a single mandatory form for company incorporation, name availability, and director's identification number;

➤ Streamlining processes of customs clearances;

➤ Online filing of application, scheduling of appointment, and payment of fees for registering properties;

➤ Digitizing all encumbrances and record of rights of lands for last 30 years and making them available online;

➤ Integrating land records with sale deeds at the sub-registrar offices; and

➤ Introduction of paperless court procedures and systems including e-filing, e-payment, e-summons, and downloading of electronically signed orders in commercial courts.

Conclusion

Despite the disappointing performance in the Doing Business Report, the government remains committed to walking the reforms course, with various policy measures and regulatory easing in the pipeline. Given India's federal set up, parliamentary model of governance, and bureaucratic institutionalism, progress will inevitably be slower than expected, but should not be written off. Repeated assessments of emerging economies also highlight that India remains a bright spot in the backdrop of a global slowdown.

Meanwhile, an alternative appraisal of the country's business environment can be found in the DIPP-World Bank's state-by-state ranking for ease of doing business in India. This national index provides a clearer picture for foreign firms seeking to enter India or looking to expand their operations in the country as they can compare the relative costs of doing business in the respective states, analyze possible investment incentives, and evaluate each state's proven track-record when it comes to regulatory reforms. At the same time, the status of the World Bank's Doing Business Report will push the Indian government to stay on top of its reform promises.

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AVIATION SECTOR AND REGIONAL CONNECTIVITY SCHEME: UDAN

Context

The Ministry of Civil Aviation took a major step today towards making flying a reality for the small town common man by launching the much awaited Regional Connectivity Scheme "UDAN".

Introduction

India's civil aviation industry is on a high-growth trajectory. India aims to become the third-largest aviation market by 2020 and the largest by 2030.

The Civil Aviation industry has ushered in a new era of expansion, driven by factors such as low-cost carriers (LCCs), modern airports, Foreign Direct Investment (FDI) in domestic airlines, advanced information technology (IT) interventions and ***growing emphasis on regional connectivity***. India is the ninth-largest civil aviation market in the world, with a market size of around US$ 16 billion. India is expected to become the third largest aviation market by 2020#.

The world is focused on Indian aviation – from manufacturers, tourism boards, airlines and global businesses to individual travellers, shippers and businessmen. If we can find common purpose among all stakeholders in Indian aviation, a bright future is at hand.

Fig. 12

Why was it in the news?

The Ministry of Civil Aviation took a major step today towards making flying a reality for the small town common man by launching the much awaited Regional Connectivity Scheme "UDAN".

UDAN is an innovative scheme to develop the regional aviation market. It is a market-based mechanism in which airlines bid for seat subsidies. This first-of-its-kind scheme globally will create affordable yet economically viable and profitable flights on regional routes so that flying becomes affordable to the common man even in small towns. The scheme had been prepared after a lot of stakeholder consultation and called for support from all players to make it a success.

Government hopes that the first flight under the scheme would be able to take off by January next year.

ANALYSIS OF CIVIL AVIATION SECTOR

Snapshot of India's Aviation Sector

➤ Aviation Market
  ◘ Ninth largest civil aviation market in the world, with a size of around $16 billion.
  ◘ India is projected to be the third largest aviation market by 2020.
➤ Passenger Traffic
  ◘ Total passenger traffic stood at 224 million during 2016.
  ◘ India is expected to have 60 million international passengers by 2017.
➤ Freight Traffic
  ◘ Total freight traffic was 2,704.27 tonnes in 2015-16 with a growth of 7 per cent over the previous year.
➤ Airline Operators
  ◘ Total number of scheduled operators in India: 15
  ◘ Total scheduled airlines in active operations: 10
  ◘ Total number of unscheduled operators: 122
  ◘ Air India is the flag carrier that has both domestic and international operations

�», 81 international airlines connecting over 40 countries

◻ Three international carriers have stakes in Indian airlines — Singapore Airlines in Tatas-promoted Vistara, AirAsia in Tatas-promoted AirAsia India and Etihad in Jet Airways

➤ Airport and Airstrips –

◻ Only 75 out of 476 airports and airstrips have scheduled operations

◻ Total airports in public-private partnership: Five

◻ India has air service pacts with 109 countries on of flights, seats, landing points and code-share

➤ Aircrafts

◻ Total numbers of civilian aircraft: 1,216

◻ Indian carriers are expected to have possessions of 800 aircrafts by 2020.

Fig. 13

Growth Drivers for India's Aviation Sector

➤ Five international airports (Delhi, Mumbai, Cochin, Hyderabad, Bengaluru) have been completed and are operational under Public Private Partnership (PPP) mode.

➤ Greenfield airport at Navi Mumbai, Mopa (Goa) and some brownfield airports of Airports Authority of India (AAI) and 50 airports under the no-frills model would be developed all over the country of which same would be executed under the PPP model.

➤ Indian aviation is experiencing dramatic growth which includes the emergence of Low Cost Carriers (LCC) / new carriers to a growing middle-class ready to travel by air as well as growth in business and leisure travel.

➤ Greater focus on infrastructure development; increasing liberalisation – Open Sky Policy; AAI driving modernisation of airports, Air and Navigation Systems.

➤ Growth in aviation is also increasing demand for MRO (maintenance, repair and overhaul) facilities.

➤ India is home to large scale collaborations/ Merger & Acquisitions (M&A) deals – Etihad Airways & Jet Airways, Tata Group & Singapore Airlines, Tata Group & AirAsia.

➤ India plans to increase the number of operational airports to 250 by the year 2020.

Government AGENCIES regulating Aviation Sector

➤ Ministry of Civil Aviation

➤ Directorate General of Civil Aviation

➤ Bureau of Civil Aviation Security

➤ Airports Economic Regulatory Authority of India

➤ Air India Limited

➤ Pawan Hans Limited

➤ Airports Authority of India

Regional Connectivity Scheme

Background

➤ The Ministry of Civil Aviation (MoCA), Government of India released the National Civil Aviation Policy 2016 (NCAP 2016) with one of the objectives of NCAP 2016 is to "enhance regional connectivity through fiscal support and infrastructure development".

➤ Centre has an ambitious plan to use civil aviation to boost tourism, jobs and balanced regional growth across the country. It also lends a fillip to India's aim of emerging as the third largest aviation market by 2020.

➤ RCS is one of the key elements of NCAP 2016, which envisions domestic ticketing of 30 crores by 2022 and 50 crores by 2027. RCS as well as NCAP 2016 would eventually promote growth of the entire civil aviation sector.

➤ Economic benefits of civil aviation are called as: ripples of prosperity. It means that the output and employment multipliers of aviation are 3.25 and 6.10 respectively. This implies that every 100 Rupees spent on air transport contributes to 325 Rupees worth of benefits, and every 100 direct jobs in air transport result in 610 jobs in the economy as a whole. In fact, the study attributes over 4.5% of the global Gross Domestic Product (GDP) to civil air transport.

➤ As the Indian economy grows, consumption-led growth in populated metros is expected to spill over to hinterland areas. This is also expected to be on account of factors of production (land,

labor, etc.) becoming costlier in the densely populated metro cities. In this scenario, air connectivity can provide required impetus to the economic growth of regional centers (towns/cities).

➤ In this scenario, one of the key objectives of NCAP 2016 is to "establish an integrated eco-system which will lead to significant growth of civil aviation sector, which in turn would promote tourism, increase employment and lead to a balanced regional growth".

UDAN – Critical Analysis

➤ Indian government launched the much talked about Regional Connectivity Scheme which aims to get more people to fly in smaller towns.

➤ Govt called the UDAN scheme as the real game changer in the aviation sector and added that the infrastructure for the scheme to take off already exists.

➤ Will UDAN be a game change? Aviation has a multiplier effect on the economy. It takes about two years to develop a route. Udaan is an exercise that is being translated from the wish list to the work list. Udaan will positively impact the local economy.

➤ In the past, regional airlines like Air Pegasus have been de-registered by the DGCA due to financial troubles. Will Udaan bring new life to airlines like these? The issue of leasing needs to be addressed. We need to sit and work around these issues and involve all stakeholders so that it ultimately benefits all.

➤ Will the old unserved routes be revived? India has around 400 airstrips, so hopefully RCS will use up all the unserved and underserved airports.

➤ Pricing of Tickets - Capping an all-inclusive airfare at Rs. 2,500 for a one-hour flight on RCS routes will give a huge boost to domestic travel. It will also see a lot of traction towards air travel from tier II and III cities as regional connectivity will strengthen and will also help small and medium enterprises in these segments to grow. However, the cap on the airfares will be applicable only to a limited number of seats in an aircraft and the passengers will be eligible for subsidized fare on a first-come-first served basis. The airlines will be mandated to fly at least three flights every week on such regional routes and the subsidy will be provided for maximum seven flights per week.

➤ Connectivity to more destinations is the key to an airport facilitating trade, investment and growth. The scheme will enhance the flow of tourism towards cities such as Gaya, Ujjain, Surat, Varanasi and Bhubaneswar as connectivity to these places will become better.

➤ Further regional airport such as Dugrapur, Nanded, Ludhiana, and Rourkela among others would benefit by acting as feeder to hub airports and thereby boost international travel.

Fig. 14

Regional Connectivity Fund (RCF) - RCF under UDAN is to Stimulate Growth and Development of Civil Aviation Sector

➤ Amount collected as Regional Connectivity Fund (RCF) will be used to provide financial support to airlines in the form of Viability Gap Funding (VGF) for operations under the Scheme.

➤ As per the directions of MoCA, RCF will be funded by a small levy per departure on all domestic flights other than the ones on Category II / Category IIA routes under RDG, RCS Routes and aircraft having maximum certified takeoff mass not exceeding 40,000 kg.

➤ The RCF would channel funds generated from the sector to stimulate further growth and development of the sector itself. A part of the fund will also be contributed to by the states that have signed the UDAN MoU: as of date, 19 states have either signed or given their consent.

Challenges for UDAN

➤ **Reducing costs for regional operators:** UDAN recognizes the challenge of high costs faced by regional operators. Accordingly, the

scheme brings down the operating cost for an airline by reducing taxes on aviation turbine fuel (ATF) and airport and other charges. Improving liquidity in the small plane leasing market will make it easy for entrepreneurs and airlines to start these routes. The winning bidder gets a three year exclusivity on the route so that the route can be matured and made profitable. The scheme uses the power of markets to discover to the lowest subsidy on the route. Half the seats can be sold by the winning bidder at market prices – this will also provide good information on the price the passengers on the route are willing to pay as and when the subsidy support goes away (between three and ten years).

► **Social obligation for a network business:** It is important to put the amount expected to be collected under this levy in context of other businesses which create connectivity and benefit from the network effect, for example, telecom and railways. The telecom industry in India generated an annual net revenue of around Rs. 1.8 lakh crores and paid 5% of its net revenues into a Universal Service Obligation (USO) fund, which collected Rs. 9,835 crores in financial year 2016. The social service obligations of the Indian Railways manifests itself in the Rs. 33,004 cr loss (in FY2015) in the passenger and coaching segment to bring connectivity to the country (this loss is on the base of passenger fares collected of Rs. 42,190 cr in the same year).

Global examples of promoting regional connectivity

► The economic importance of promoting regional or remote connectivity is well understood across the world. Geographically large countries like the USA, Canada, Brazil and Australia among many others support regional and remote connectivity. UDAN is the first-of-its-kind scheme globally which harnesses the power of the markets to provide a public good.

► The RCF is estimated to collect around Rs 500 cr (or US$ 75 mn) will be roughly one fourth the size of the US$ 290 mn that the US government would spend in promoting its Essential Air Service (EAS) in 2016. According to analyst reports, the aviation industry in India is expected to record revenues of Rs 0.7 lakh crores on domestic travel in this year – this levy could amount to only 0.6% of the total domestic revenues of the industry.

► If the average viability gap funding required by the industry amounts to say Rs. 1,000 per seat, this levy can create 50 lakh UDAN seats or 1 crore seats overall connecting currently underserved and unserved airports. With around 10 crore people expected to fly this year domestically even before the launch of the scheme, UDAN can significantly increase the base of travelers in India introducing large numbers of citizens to a more efficient transport.

Conclusion

► Given the encouraging civil aviation policy as a step towards boosting air transport, the thrust on government now is to develop appropriate infrastructure to facilitate the anticipated growth in traffic movement.

► In the context of current situation, the government may have to step up in terms of incurring the capital expenditure on creating or upgrading such airport facilities which could be later on monetized by bringing in private companies.

► The pivotal to enabling the scheme's success lies on centre-state cooperation, in the form of viability gap funding, subsidized aviation fuel and a controversial fare cap.

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DEBIT CARD CRIME

Context

According to India's largest bank, State Bank of India, it had blocked close to 6 lakhs debit cards following a malware-related security breach in a non-SBI ATM network. Several other banks, such as Axis Bank, HDFC Bank and ICICI Bank, too have admitted being hit by similar cyber attacks - forcing Indian banks to either replace or request users to change the security codes of as many as 3.2 million debit cards.

A cashless economy is one in which all the transactions are done using cards or digital means. The circulation of physical currency is minimal. However, presently India uses too much cash for transactions. Most of the cash in advanced economies is floating around in the "world underground economy".

The potential benefits of cashless economy are as follows:

➤ **Faster transactions:** With the cashless system, typically three times more people can be served using a cashless system than could have been if they were paying cash. No need for queues outside ATMs, no cashout during long holidays, no waiting for a deposited cheque to be credited, and no risk of carrying currency notes in the wallet.

➤ **Managing staff entitlements:** Free Vends, corporate cash, loyalty and hospitality spend are all entitlements which can be programmed on to the card, this can be refreshed, daily, weekly or monthly.

➤ **Increased Sales:** It has been demonstrated that with the introduction of a cashless system can increase sales by as much 20%. Vending and Catering purchases are often dictated by the amount we have in our pockets. With the introduction of a cashless system this is never a problem; the value on the card is available 24 hours a day, 7 days a week.

➤ **Cash collection – made simple:** Time spent collecting, counting and sorting cash costs money. The cashless system offers a choice of top-up options including Payroll deduction, Credit & Debit card, Coin & Note. Removing all the cash from your site removes the security issues relating to cash handling significantly and reduces the risk of vandalism and theft from your vending and catering points of sale.

➤ **Reduces Cash in Circulation:** A cashless system prevent too much of cash in the circulation thereby curb armed robbery cases and cash related crime.

➤ **Job Creation:** the licensing and establishment of payment agencies will create jobs and new business opportunities.

➤ **Curb on black money:** Cash transactions and black money are directly linked, since a cash trail is nearly impossible to track. As such, electronic transactions and the ease of audit they afford should make the government's job much easier in terms of curbing illegal transactions.

However, the biggest threat to cashless economy is 'Plastic card fraud'.

Plastic card fraud involves the compromise of any personal information from credit, debit or store cards. The personal information stolen from a card, or the theft of a card itself, can be used to commit fraud. Fraudsters might use the information to purchase goods in your name or obtain unauthorised funds from an account. Plastic card fraud can also include 'card not present' fraud, such as the use of a card online, over the phone or by mail order, and counterfeit card fraud.

The techniques used are:

➤ **Application fraud:** This type of fraud occurs when a person falsifies an application to acquire a credit card.

➤ **Fake and counterfeit cards:** The creation of counterfeit cards, together with lost / stolen cards pose highest threat in credit card frauds.

➤ **Skimming:** Most cases of counterfeit fraud involve skimming, a process where genuine data on a card's magnetic stripe is electronically copied onto another.

➤ **Site cloning:** Site cloning is where fraudsters clone an entire site or just the pages from which you place your order.

Keypad jamming:

➤ The fraudster jams the 'Enter' and 'Cancel' buttons with glue or by inserting a pin or blade at the buttons' edge. A customer trying to press the 'Enter/OK' button after entering the PIN, does not succeed, and thinks the machine is not working. An attempt to 'Cancel' the transaction fails as well. In many cases, the customer leaves — and is quickly replaced at the machine by the fraudster. A transaction is active for around 30 seconds (20 seconds in some cases), and he is able to remove the glue or pin from the 'Enter' button to go ahead with the withdrawal. The loss to the cardholder is, however, limited by the ceiling on withdrawals, and the fact that only one transaction is possible without swiping the card again and re-entering the PIN.

Card swapping:

➤ Sometimes, when a customer uses his debit card at a merchant establishment, the fraudster (who could be a fuel pump attendant or a restaurant waiter, etc.) will make a note of the PIN that is keyed in and, while returning the card, swap it with an identical dummy from a store of several cards he keeps. With both card and PIN, the fraudster can then withdraw cash until the cardholder is able to block the card. Banks advise customers to make sure their card is always in sight, to check if it is indeed theirs when an attendant hands it back, and to not ask him to punch in the PIN at the 'point of sale' terminal. In cases of card swapping fraud too, banks do not accept liability.

Skimming:

➤ This kind of fraud is more sophisticated. A small skimming device is planted in the ATM's debit card slot, which is able to read the information on the card's magnetic tape. The information, once copied, can be reproduced on any card, which can be subsequently used to withdraw cash. The customer's PIN is captured by a small camera that the fraudster installs in the ATM kiosk. Banks generally take the liability for skimming frauds and make good the customer's loss. However, the customer must block the card after the first instance of misuse.

Brief about the recent crisis

➤ Some banks came across fraudulent transactions in which debit cards were used in China and the US when customers were actually in India. Cardholders also detected similar transactions subsequently, the banks complained to the National Payments Corporation of India (NPCI), which oversights over retail payments systems in India.

➤ The probe by NPCI found a malware-induced security breach in the systems of Hitachi Payment Services, which provides ATMs, point of sale and other services in India. The investigation alleged that the security breach occurred in the ATMs of a particular private bank.

➤ After the probe found that ATMs had been compromised as early as in May 2016, all three service providers Visa, MasterCard and RuPay asked banks to either tell customers who could potentially be at risk to change their PIN, or issue them new cards. Most banks asked customers to change their PIN, and in certain cases blocked the cards and decided to issue fresh ones. For example the SBI has proposed to provide Chip Based ATMs replacing Magnetic Strip Based ATMs.

➤ The new threat exists because of the radio-frequency identification chips (RFID) or Near Field Communication (NFC) chips that are starting to be embedded in credit and debit cards. A person can use this "swipe to pay" technology to capture customers info by scanning his wallet or purse with an electronic scanner.

➤ According to NPCI, 90 ATMs have been compromised, and at least 641 customers across 19 banks have lost Rs 1.3 crore as a result of fraudulent transactions on their debit cards.

What are banks doing to protect cardholders?

➤ Since most of the cards at risk are not chip-based, banks are planning to replace them with chip-based ones. In this wake, Maharashtra Police has begun investigations into the security breach and has written to the RBI seeking information on the fraudulent transactions.

➤ **The council of Payment Card Industry Data Security Standard (PCIDSS),** an international body that sets data security standards, has ordered a forensic audit of the data breach in India, which will be concluded shortly.

SMART CARDS

Smart credit cards operate in the same way as their magnetic counterparts, the only difference being that an electronic chip is embedded in the card. These smart chips add extra security to the card. Smart credit cards contain 32-kilobyte microprocessors, which is capable of generating 72 quadrillion or more possible encryption keys and thus making it practically impossible to fraudulently decode information in the chip. The smart chip has made credit cards a lot more secure; however, the technology is still being run alongside the magnetic strip technology due to a slow uptake of smart card reading terminals in the world market. Smart cards have evolved significantly over the past decade and offer several advantages compared to a general-purpose magnetic stripe card.

The advantages are listed below:

➤ Stores many times more information than a magnetic stripe card.

➤ Reliable and harder to tamper with than a magnetic stripe card.

➤ Performs multiple functions in a wide range of industries.

➤ Compatible with portable electronic devices such as phones and Personal Digital Assistants (PDAs), and with PCs.

➤ Stores highly sensitive data such as signing or encryption keys in a highly secure manner.

➤ Performs certain sensitive operations using signing or encryption keys in a secure fashion.

Who is liable if a card is subject to fraud orchestrated by a third party?

➤ According to the RBI's draft circular on customer protection, a customer is not liable for a third-party breach, or where negligence or fraud is on the part of the bank, if the customer informs the bank of the fraud within 3 working days of receiving a communication from the bank on any unauthorised transaction.

Precautionary measures taken by the Banks:

➤ All banks are asking customers to change their ATM PIN frequently.

➤ They are also blocking international transactions that can be conducted without PIN.

➤ Till date, close to 30 lakhs debit cards are understood to have been used in ATMs that gave details to malwares.

What is RBI doing to mitigate cyber attacks on financial institutions?

➤ RBI issued instructions on a cyber security framework in banks, asking them to put in place a board-approved cyber security policy, prepare a cyber crisis management plan, and make arrangement for continuous surveillance.

➤ The circular also asked banks to share unusual cyber security incidents with RBI.

➤ Apart from this, RBI has set up an expert panel on IT Examination and Cyber Security to provide assistance in banks' cyber security initiatives.

➤ RBI is proposes to cover, by 2017-18, all banks under a detailed IT examination programme that it launched in October 2015.

Conclusion

➤ The affected systems were quarantined and inspected and the cards that were exposed have been identified and each bank has taken action according to its risk management practices.

➤ The incident has also compelled RBI to review its reporting framework and it has asked banks to immediately inform the central bank of any suspected fraud. The information would be shared with other banks on **'no-name'** basis so that proactive measures can be taken by the industry.

➤ Banks in India having embraced technological change, the onus is on them to integrate inter-generational legacy systems across branches, ATMs and online banking networks into one seamless and secure all, through incentives such as tax rebates and cash back schemes.

➤ Panel has been tasked with reviewing the payment system in the country and suggests measures for encouraging digital payment.

To be safe in future, one can take precautions such as setting a limit on card. Many banks allows to set cash withdrawal limits and transaction limits. People can do it using net banking. Hence, one is exposed to only a limited amount of fraud.

IBBI AND INSOLVENCY RULES

Context

New Insolvency and Bankruptcy Code passed by Parliament earlier this year, promises to address the structural problems hampering the efficient recycling of capital and rebalance the rights of creditors. Recently Insolvency and Bankruptcy Board of India has been notified.

Introduction

Indian banking industry has a large number of loans outstanding that have simply gone wrong. Non-Performing Loans (NPL) are estimated at just over INR 6.3 trillion. In this context, the **new Insolvency and Bankruptcy Code** passed by Parliament earlier this year, promises to address the structural problems hampering the efficient recycling of capital and rebalance the rights of creditors, giving them much needed recourse to take timely and effective action against defaulting borrowers.

It is scheduled that the Code will become effective by the end of this year and in order to achieve this, institutions need to be set up and regulations are required to be put in place. Thus the new Insolvency and Bankruptcy Board of India has been constituted by the government.

What is Insolvency and Bankruptcy?

Insolvency refers to a situation where any person or a body corporate is unable to fulfill its financial obligations (often occurring due to several factors such as a decrease in cash flow, losses and other related issues).

Bankruptcy on the other hand is a situation whereby a court of competent jurisdiction has declared a person or other entity insolvent, having passed appropriate orders to resolve it and protect the rights of the creditors.

What is the need for an insolvency and bankruptcy code 2016?

Indian banks are sitting on a huge pile of bad debts. The total Non Performing Assets (NPAs) is around 4 Lakh Crore and a huge amount of restructured loans also. Thus the total stressed assets (Bad Debts) amount to 11% of the total lending.

➤ As a percentage of total loans, the bad loans grew from 3.49% (2013) to 8.3% (2015).

➤ Corporate bad loans constitute 56% of the total bad loans of state-run banks.

➤ At present, there are around 70000 pending liquidation.

➤ It takes almost 4 years to wind up an ailing company in India etc.

➤ There are around 12 laws (Some are more than 100 years old) to tackle Insolvency.

➤ Ease of doing Business India is presently ranked 130 (Out of 189 countries) in 2016.

➤ Resolving Insolvency India is presently ranked 136 (Out of 189 countries) in 2016.

   ◘ Effective implementation of Insolvency and Bankruptcy Code can potentially release about Rs. 25,000 Crore capital over next 4-5 years currently locked in bad loans.

   ◘ If implemented successfully, the code will help India's banking sector catch up with or even exceed the recovery rates of 32% and average time taken of 2.8 years in other emerging markets.

   ◘ It said the capital released can be deployed for other productive lending which could help in credit expansion.

Journey of the Insolvency and Bankruptcy Code, 2016 (Date - Events)

➤ 21st December, 2015 - The Code was introduced in Lok Sabha by Finance Minister Mr. Arun Jaitley

➤ 23rd December, 2015 - The Code was referred to a Joint Committee of Parliament

➤ 28th April, 2016 - The Joint Committee submitted its report in Lok Sabha and Rajya Sabha

➤ 5th May, 2016 - The Insolvency and Bankruptcy Code, 2016 was passed in Lok Sabha

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> ➤ 11th May, 2016 - The Insolvency and Bankruptcy Code, 2016 was passed in Rajya Sabha
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> ➤ 28th May, 2016 - Assented by the President of India and notified as the Insolvency and Bankruptcy Code, 2016
>
> **List of different committee constituted by the government for Insolvency law is given:**
>
> Government Committees On Bankruptcy Reforms: (Year - Committee – Outcome)
>
> ➤ 1964 - 24th Law Commission - Amendments to the Provincial Insolvency Act, 1920
>
> ➤ 1981 Tiwari Committee (Department of Company Affairs) - SICA, 1985
>
> ➤ 1991 Narasimham Committee I (RBI) - RDDBFI Act, 1993
>
> ➤ 1998 Narasimham Committee II (RBI) - SARFAESI Act, 2002.
>
> ➤ 1999 Justice Eradi Committee (GOI) - Companies (Amendment) Act, 2002, Proposed repeal of SICA
>
> ➤ 2001 L. N. Mitra Committee (RBI) - Proposed a comprehensive bankruptcy code.
>
> ➤ 2005 Irani Committee (RBI) - Enforcement of Securities Interest and Recovery of Debts Bill, 2011. (With amendments to RDDBFI and SARFAESI)
>
> ➤ 2008 Raghuram Rajan Committee (Planning Commission) - Proposed improvements to credit infrastructure.
>
> ➤ 2013 Financial Sector Legislative Reforms Commission (Ministry of Finance) - Draft Indian Financial Code which includes a, Resolution Corporation for resolving distressed financial firms.

Insolvency and Bankruptcy Code, 2016

➤ The Code seeks to consolidate and amend laws relating to reorganisation as well as insolvency resolution of corporate persons, individuals and partnership firms in a time-bound manner. The Code repeals the Presidency Towns Insolvency Act, 1909 and Provincial Insolvency Act, 1920. In addition, it amends 11 laws, including the Companies Act, 2013, and the Recovery of Debts Due to Banks and Financial Institutions Act, 1993, among others.

➤ The Code will apply to companies, partnerships, limited liability partnerships, individuals and any other body specified by the central government.

➤ Under this new law, employees, creditors and shareholders will have powers to initiate winding up process at first sign of financial stress such as serious default in repayment of bank loan.

➤ **Insolvency Resolution Process:** The Code specifies similar insolvency resolution processes for companies and individuals, which will have to be completed within 180 days. This limit may be extended to 270 days in certain circumstances. The resolution process will involve negotiations between the debtor and creditors to draft a resolution plan.

➤ **The process will end under two circumstances,** (i) when the creditors decide to evolve a resolution plan or sell the assets of the debtor, or (ii) the 180-day time period for negotiations has come to an end. In case a plan cannot be negotiated upon during the time limit, the assets of the debtor will be sold to repay his outstanding dues. The proceeds from the sale of assets will be distributed based on an order of priority.

➤ **Priority under liquidation:** The assets will be distributed in the following order, in case of liquidation: (i) fees of insolvency professional and costs related to the resolution process, (ii) workmen's dues and secured creditors, (iii) employee wages, (iv) unsecured creditors, (v) government dues and remaining secured creditors (any remaining debt if they enforce their collateral), (vi) any remaining debt, and (vii) shareholders.

➤ **Fresh Start Process:** The Code provides a Fresh Start Process for individuals under which they will be eligible for a debt waiver of up to Rs. 35,000. The individual will be eligible for the waiver subject to certain limits prescribed under the Code.

➤ **Insolvency professionals and agencies:** The resolution process will be conducted by a licensed insolvency professional (IP). The IP will control the assets of the debtor during the process. Insolvency professional agencies will be created to regulate these IPs. The agencies will conduct examinations to enrol IPs and enforce a code of conduct for their functioning.

➤ **Information Utilities:** The Code establishes multiple information utilities to collect, collate and disseminate financial information related to a debtor. This will include a record of debt and liabilities of the debtor.

➤ **Insolvency regulator:** The Insolvency and Bankruptcy Board of India will be established as a regulator to oversee functioning of IPs, insolvency professional agencies and information utilities. The Board will have 10 members, including representatives from the central government and the Reserve Bank of India.

➤ **Adjudicatory Authorities:** The Code proposes two tribunals to adjudicate insolvency resolution cases: (i) the National Company Law Tribunal will adjudicate cases for companies and limited liability partnerships, and (ii) the Debt Recovery Tribunal will adjudicate cases for individuals and partnership firms.

➤ **Insolvency and Bankruptcy Fund:** The Code creates an Insolvency and Bankruptcy Fund. The Fund will receive voluntary contributions from any person. In case of insolvency proceedings being initiated against the contributor, he will be allowed to withdraw his contribution for making payments to workmen, protecting his assets, etc.

➤ **Cross-border Insolvency:** Cross border insolvency relates to an insolvent debtor who has assets abroad. The central government may enter into agreements with other countries to enforce provisions of the Code.

➤ **Offences:** The Code specifies penalties for offences committed under corporate insolvency (such as concealing property). This penalty will be imprisonment of up to five years, or a fine of up to one crore rupees, or both. For offences committed under individual insolvency (such as providing false information), the imprisonment will vary based on the offence. For most of the offences, the penalty will be imprisonment of up to six months, or a fine of up to five lakh rupees, or both.

Companies Act, 2013:

Currently, the Companies Act 2013 permits the following parties to file an application before NCLT for a declaration that company is sick-

➤ The company

➤ Any secured creditor

➤ The Central Government

➤ The Reserve Bank of India

➤ State Government

➤ Public financial institution

➤ A State level institution

➤ A scheduled bank.

Even under the SARFAESI, 2002, debt enforcement rights are available for secured creditors only.

Critics of New Code:

➤ Time-bound insolvency resolution will require establishment of several new institutional mechanisms. The current capacity of debt recovery tribunals may be inadequate to take the additional role.

➤ IPAs, regulated by the Board, will be created for regulating the functioning of IPs. This approach of having regulated entities further regulate professionals may be contrary to the current practice of regulating professionals.

➤ The order of priority to distribute assets during liquidation is unclear. For instance why secured creditors will receive their entire outstanding amount, rather than up to their collateral value; why unsecured creditors have priority over trade creditors?

➤ The Code provides for the creation of multiple IUs. However, it's possible that complete information about a company may not be available through a single IU. This may lead to financial information being scattered across these IUs.

➤ The Code creates an Insolvency and Bankruptcy Fund. However, it does not specify the manner of usage of the fund. The priority being given to secured creditors relinquishing security needs specific attention, especially on account of the same having the potential to be misused, especially if the debtor and the secured creditor can collide and impair the collateral.

Insolvency and Bankruptcy Board of India (IBBI)

For the proper implementation The Union Finance Ministry constituted Insolvency and Bankruptcy Board of India (IBBI) with Financial markets expert MS Sahoo as its Chairman.

The board will have three members from among the officers of the central government not below the rank of joint secretary or equivalent, representing the ministries of finance, corporate affairs and law.

Another member will be nominated by RBI while five other members will be nominated by the central government, including three whole-time members.

All questions which come up before any meeting of the board shall be decided by a majority vote of the members present and voting. In the event of a split, the chairperson shall have a second or casting vote.

IBBI has been tasked to regulate functioning of insolvency professionals, insolvency professional agencies and information utilities under Insolvency and Bankruptcy Code 2016.

Conclusion

It is a progressive step towards improving the investor confidence and ease of doing business. The possible demerits can be addressed through discussions and consensus building. If implemented earnestly, it will give boost to job creation promise through skill development mission and it will for success of Make in India.

This will be a positive step and provide impetus to good governance and uphold rule of law, as, the people who file for bankruptcy will have to repay their debts.

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INITIATIVES TO SUPPORT MSME SECTOR

Context

Government of India has launched Zero Defect, Zero Effect Scheme and National SC/ST Hub for the growth of MSME sector.

Micro, Small and Medium Enterprises (MSME) sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last five decades. MSMEs form a major part of manufacturing sector and give employment to a large number of people. Further more, MSME play an important role in making India a hub for start-ups. Start-ups generate employment, bringing innovation, quality manufacturing and inclusive growth and plays a key role in the development of the country.

Why was it in the news?

Finance Minister Arun Jaitley in his budget speech 2016 had announced setting up of the National SC/ST Hub under the MSME Ministry to supper SC/ST entrepreneurs. On this line Government launched the National SC/ST Hub in Ludhiana to provide support to entrepreneurs from the SC/ST community with an initial outlay of Rs 490 Crore. The hub will work towards strengthening market access/linkage, monitoring, capacity building, leveraging financial support schemes and sharing industry-best practices.

Further PM has also launched the Zero Defect, Zero Effect (ZED) scheme for MSMEs. Government is aiming to strengthen MSME sector to match global quality control standards.

MSME Sector

Fig. 7

Micro, Small and Medium Enterprises (MSME) sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last five decades. The manifest capacity of Micro, Small and Medium Enterprises (MSMEs) around the world for driving economic growth and development at regional, national and global levels cannot be overemphasized. As India gears up to retrace the high growth path, the MSME sector assumes a pivotal role in driving the growth engine.

► **Resilience to Global Economic Crisis:** The MSME sector in India continues to demonstrate remarkable resilience in the face of trailing global and domestic economic circumstances.

► **High Growth Rate:** The sector has sustained an annual growth rate of over 10% for the past few years.

► **Innovation and Adaptability:** With its agility and dynamism, the sector has shown admirable innovativeness and adaptability to survive economic shocks, even of the gravest nature.

► **Employment generation:** MSMEs play crucial role in providing large employment opportunities at comparatively lower capital cost than large industries.

► **Low Investment:** Low capital and Technology requirement, promotion of industrial development in rural areas, use of traditional or inherited skill, use of local resources, mobilization of resources and exportability of products.

► **Rural Industrialisation:** It also helps in industrialization of rural & backward areas, thereby, reducing regional imbalances, assuring more equitable distribution of national income and wealth.

► **Complementary to large Industries** as ancillary units and this sector contributes enormously to the socio-economic development of the country.

► **Inclusive Growth driver:** The MSME sector has the potential to spread industrial growth across the country and can be a major partner in the process of inclusive growth.

► **Legacy of MSME Sector:** Khadi and Village Industries (KVI), Coir Industry as agro-based traditional industry.

► **Performance of MSME Sector:** According to the Government estimates the sector generates around

◘ 100 million jobs through over 46 million units situated throughout the geographical expanse of the country.

◘ With 38% contribution to the nation's GDP and 40% and 45% share of the overall exports and manufacturing output, respectively, it is easy to comprehend the salience of the role they play in social and economic restructuring of India.

◘ The Sector through more than 6,000 products contributes about 8% to GDP besides 45% to the total manufacturing output and 40% to the exports from the country.

The Diversity of the Indian MSME Sector

► The MSME sector in India boasts of diversity in terms of its size, level of technology employed, range of products and services provided and target markets.

► MSME Tool Rooms have been credited to provide at least ten components that were used in India's Mangalyaan (Mars Orbiter Mission probe), the Indian Space Research Organization's (ISRO) most ambitious mission till date, which is the country's first inter-planetary space mission.

► The sector has also contributed vital inputs for other space satellites such as the Chandrayan.

► India seeks to launch other ambitious projects like a global sea traffic monitoring system and an earth observation satellite, in cooperation with the EU. The projects envision significant contributions and convergence opportunities from the Indian MSME sector.

► With spending in Defence and Aerospace on the rise in India, it is estimated to become the third largest market by 2020, after the US and China.

► Many global companies are increasingly looking to Indian MSMEs for strategic partnerships of mutual benefit due to the innovative capabilities in niche manufacturing, comparative advantages of advanced engineering, low-cost manufacturing and overheads, ability to speedily absorb new technologies and local skills and capabilities that set these enterprises apart from other national and international players in the sector.

► With its vast resource pool of engineering talent and high skill labour at competitive costs, India has the potential to become a significant player in the global Auto industry, especially in engineering and component manufacturing.

► India's close proximity to key automotive markets like the ASEAN, Japan, Korea and Europe provide an added fillip to the sector. Exports of auto components increased at a CAGR of 17% during 2008-13, reaching USD 9.7 Billion in 2012-13. MSMEs assume a dominant position in the automotive and auto components sector.

Supportive Role of Government of India

Recognizing the potential of this sector for the nation's development, the Government of India, through its various agencies, has taken many key steps:

► Regular dialogue is facilitated between various stakeholders through the constitution of specific task forces and inter-ministerial committees.

► *The Micro and Small Enterprises-Cluster Development Programme* is being implemented by the government for the holistic and integrated development of these enterprises in clusters through soft interventions, hard interventions and infrastructure upgradation for enhancing their productivity and competitiveness. During the year 2014-15, 43 new clusters have been taken up for various interventions. So far, around 966 clusters and 171 infrastructure development programmes have been initiated by the government.

► *The Credit Linked Capital Subsidy Scheme* also assists in the technological upgradation on MSMEs. The National Manufacturing Competitiveness Programme is another flagship programme of the Ministry of MSME which endeavors to equip these enterprises with technology-based tools in the areas of quality upgradation, productivity, design development, energy efficiency and marketing.

► To ensure better flow of credit to SMEs, the Ministry has introduced a *Policy Package for Stepping up Credit to Small and Medium Enterprises (SMEs)* under which it operates schemes like the Credit Guarantee Fund Scheme and the Performance and Credit Rating Scheme.

Other Schemes to promote MSME'S:

► Prime Minister Employment Generation Programme(PMEGP)

► National Manufacturing Competitiveness Programme

► Scheme of Fund for Regeneration of Traditional Industries(SFURTI)

► Performance & Credit Rating Scheme

► Prime Minister's Employment Generation Programme (PMEGP)

► Credit Guarantee Scheme

► Credit Linked Capital Subsidy Scheme(CLCSS)

► National Manufacturing Competitiveness Programme

► Cluster Development Programme

► Marketing Development Assistance

► Skill Development Programmes

► International Cooperation Scheme etc.

► Coir Vikas Yojana(CVY)

► Mahila Coir Yojana(MCY)

STAND UP INDIA SCHEME

The Stand up India Scheme is being launched to promote entrepreneurship among people from schedule caste/schedule tribe and woman who will be provided loans starting from Rs. 10 lakhs to Rs. 100 lakhs.

The Scheme which is an upgraded version of 'Start up India Scheme' is expected to benefit entrepreneurs in large numbers. Through this scheme, Government intend to facilitate at least two such projects per bank branch (Scheduled Commercial Bank) on an average one for each category of entrepreneur.

The broad feature of "Stand up India Scheme" is as follows:

► Composite loan between Rs. 10 lakhs and upto Rs. 1 crore will be provided to entrepreneurs for setting up new enterprise

► Debit Card (RuPay) for withdrawal of working capital.

► Credit history of borrower to be developed.

► Refinancing window through Small Industries Development Bank of India (SIDBI) with an amount of Rs. 10,000 crore.

► Support for borrowers looking for pre loan training needs, facilitating loan, factoring, marketing etc.

► Online support services, online registration and web portal.

The overall intention is to leverage government's credit structure and to reach out to undeserved sectors. The launch will also include distribution of 5100 E-Rickshaws by Bhartiya Micro Credit (BMC) under the Pradhan mantri Mudra Yojana Scheme.
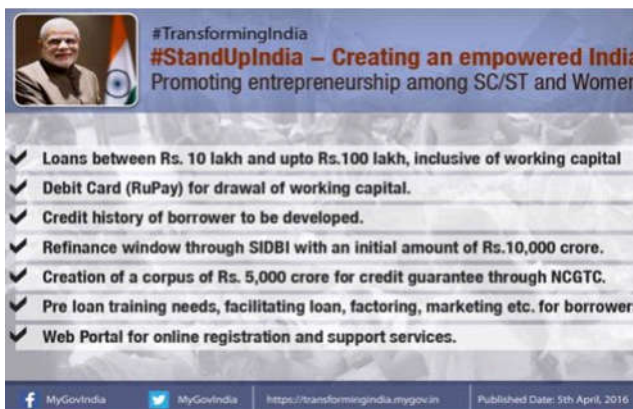

Fig. 7

HUB for SC/ST Entrepreneurs

A national hub in the Ministry of Micro Small and Medium Enterprises (MSME) is set up in Ludhiana to provide professional support to scheduled caste/scheduled tribes (SC/ST) entrepreneurs.

SC and ST entrepreneurs are beginning to show considerable promise in starting and running businesses. Stand Up India scheme aimed at promoting entrepreneurship among ST/SCs and women and for that Rs 500 crore has been provided.

This hub will provide a professional support to SC/ST entrepreneurs to fulfil the obligations under the Central government procurement policy adopted best practices and leverage the Stand up initiative. The scheme for welfare and skill development of minorities such as multi sectoral development and USTAD shall be implemented effectively.

Procurement Target Of Govt

It will also enable central public sector enterprises to fulfil the procurement target set by the government. The Public Procurement Policy 2012 stipulates that 4 per cent of procurement done by ministries, departments and CPSEs will have to be from enterprises owned by SC/ST entrepreneurs.

ZED SCHEME (ZERO DEFECT, ZERO EFFECT)

On India's 68th Independence Day, Government urged the industry, especially the MSMEs of India, to manufacture goods in the country with "zero defects" and to ensure that the goods have "zero effect" on the environment.

It aims at enabling the advancement of Indian industry to a position of eminence in the global marketplace and leverage India's emergence as the world's supplier through the 'Made in India' mark.

To develop and implement a 'ZED' culture in India based on the principles of:

➤ Zero Defect (focus on customer)
  ◘ Zero non-conformance/non-compliance
  ◘ Zero waste
➤ Zero Effect (focus on society)
  ◘ Zero air pollution/liquid discharge (ZLD)/solid waste
  ◘ Zero wastage of natural resources
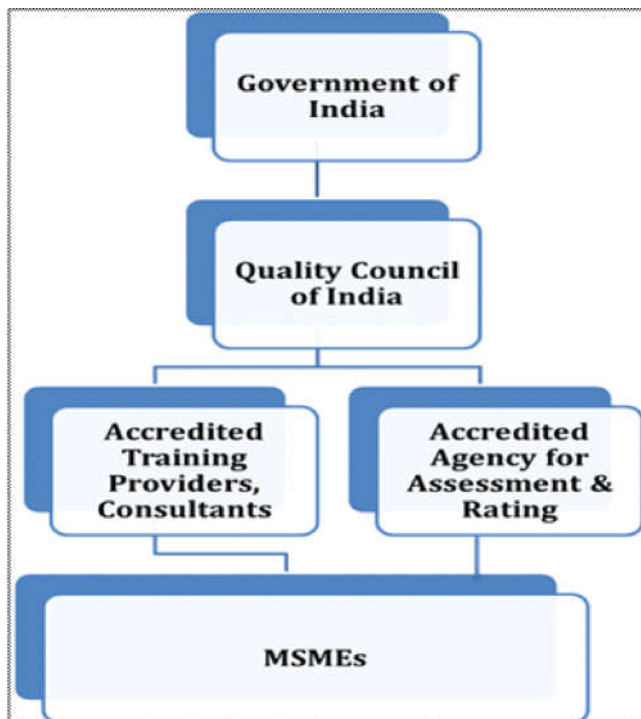
Implementation Structure

Fig. 7

Benefits of ZED

➤ Credible recognition of the industry for international customers seeking investment in India
➤ Streamlined operations and lower costs
➤ Superior quality, reduced rejection and higher revenues
➤ Increased environmental & social benefits
➤ Additional employment generation
➤ Other benefits as announced by the Government from time to time

Make in India and ZED

The announcement of Make in India and Zero Defect Zero Effect put in perspective the governments' intent to change the course of economy by focusing on manufacturing as an engine to sustained growth. In order to build the ecosystem to implement the idea, three important components emerged as the vehicle for this new transformation:

➤ The Ease of Doing Business in India.
➤ The confidence in quality of source material, components and services.
➤ Making available competent human resource to drive the change.

While the Department of Industrial Policy and Promotion took the responsibility of creating an atmosphere of Ease of doing business, Quality Council of India (QCI) along with the M/o MSME started exploring the idea of creating a holistic scheme to engage the MSME sector, long considered as a propellant for sustained growth, by improving their quality and competitiveness.

ZED was established to give progresive assistance in this scheme. The ecosystem around ZED model is calibrated to make aware, assess, rate, counsel, handhold, re-assess & certify MSMEs and ensure that they rise up the ZED ladder, thus enhancing their competitiveness in the global marketplace and making them an important cog in the wheel in the "MAKE-IN-INDIA" campaign. It also, as a consequence, provides career opportunities for the youth in India.

Conclusion

The Make in India Strategy adopted by the Government aims to facilitate investment, foster innovation, enhance skill development and build a sustainable eco-system for the manufacturing infrastructure in the country.

These measures have succeeded in raising the business confidence in India. The stage has been set through these industry and MSME interventions for a larger share of global business in India which presents opportunities for MSME integration in almost all industry sectors.

The Indian MSME sector is poised for rapid growth and integration with major global value chains. Timely policy intervention and due support have promptly resulted in rendering the Indian MSMEs globally competitive.

BRICS SUMMIT AND RELEVANCE OF IT IN PRESENT ERA

Context

The 8th BRICS summit concluded in Goa with the adoption of the Goa Declaration which pledged opposition to terrorism, even as India failed to get a consensus on references to "cross-border terror" and Pakistan-based terror groups in the final statement.

BRICS brings together five major emerging economies Brazil, Russia, India, China and South Africa, comprising 43% of the world population, having 30% of the World GDP and 17% share in the world trade.

As a formal grouping, BRIC started after the meeting of the Leaders of Russia, India and China in St. Petersburg on the margins of G8 Outreach Summit in 2006. The grouping was formalized during the 1st meeting of BRIC Foreign Ministers on the margins of UNGA in New York in 2006. The 1st BRIC Summit was held in Yekaterinburg, Russia, on 16 June 2009.

It was agreed to expand BRIC into BRICS with the inclusion of South Africa at the BRIC Foreign Ministers' meeting in New York in September 2010. Accordingly, South Africa attended the 3rd BRICS Summit in Sanya, China on 14th April 2011.

The agenda of BRICS meetings has considerably widened over the years to encompass topical global issues, starting essentially with economic issues of mutual interest.

BRICS cooperation has two pillars:

➤ Consultation on issues of mutual interest through meetings of Leaders as well as of Ministers of Finance, Trade, Health, S&T, Education, Agriculture, Communication, Labour, etc.

➤ Practical cooperation in a number of areas through meetings of Working Groups/Senior Officials.

The BRICS members are all developing or newly industrialized countries and all five are G-20 members. The regular annual summits are held with the leaders of member countries on the margins of G-20 Summits.

Why was it in the news recently?

Recently, the Leaders of the Federative Republic of Brazil, the Russian Federation, the Republic of India, the People's Republic of China and the Republic of South Africa, met on 15-16 October 2016 in Goa, India, at the Eighth BRICS Summit, which was held under the theme "Building Responsive, Inclusive and Collective Solutions.

Fig. 7

Why does the world need the BRICS?

➤ In context with the changing world situation, the leading role of the Group of Seven (G7) and, more broadly, of the Organisation for Economic Cooperation and Development (OECD) is no longer undisputed. Most multi-lateral institutions were designed in the era when the West dominated the world. The US and Europe are over-represented in the IMF and the World Bank. Together with Japan, they control most regional development banks as well.

➤ This imbalance has been especially clear during the recent global financial crisis when the need for participation by non-G7 countries became evident. This resulted in reviving the Group of 20 (G20) and proposals to redistribute voting rights in international financial institutions. But change has been slow and Western countries continue to control the international financial institutions.

➤ This is why BRICS summits are so important. These meetings provide a unique forum where non-OECD leaders can discuss global challenges and co-ordinate their actions within and outside

global institutions. The small size of the club and the absence of OECD partners help in shaping the discussions at the summit.

What have the BRICS nations achieved so far?

➤ BRICS nations are now playing a far more important role in the global economy, but still they have not yet managed to get their act together.

➤ Even on key issues like selecting a successor to Dominique Strauss-Kahn at the IMF, BRICS countries were not able to put forward a credible alternative to the conventional approach that IMF should be run by a Western European.

➤ Nor have they been able to speak with one voice about the most important global economic and financial challenges co-ordination of monetary and fiscal policies, macro prudential regulation, development aid etc.

Do they have enough in common to get things done?

➤ BRICS countries are very different both in terms of their resources and in terms of their values and goals. The only thing they all have in common is, well, membership of BRICS.

➤ Brazil and India are democratic, China and Russia are not.

➤ Brazil and Russia export hydrocarbons, China and India are net importers.

➤ China and Russia are permanent members of the UN Security Council the others are not.

➤ Structure of financial systems, levels of income, education, inequality, health challenges also differ substantially within BRICS.

➤ This is why it is very hard to speak with a unified voice and to co-ordinate action. The fact that BRICS have not really established anything tangible yet should not be a disappointment.

BRICS Summit GOA Declaration

India has tried to use the multilateral forum to serve its larger strategic ends. The Goa declaration laid down "a comprehensive vision for our cooperation and coordination, within BRICS and on international issues." But it was clear from the way India shaped the agenda of the Goa summit that India was working towards a different end game this time, looking beyond the immediate BRICS mandate.

Focus on terrorism

➤ India's focus, by and large, remained on the issue of terrorism. Without naming neighbour Pakistan, India used the BRICS platform to refer to the country as the "mothership of terrorism", and forcefully argued that a "selective approach against terrorism" would be both futile and counterproductive.

➤ India made it plain to his BRICS partners that this is an issue on which India feels rather strongly and that "BRICS needs to work together and act decisively to combat this threat."

➤ This message was primarily aimed at China, a country with which India has had differences on the issue of Pakistan-sponsored terrorism against India.

➤ Recognising the limits of bilateral Sino-Indian engagement, India seems to use the leverage of a multilateral platform to put China on notice. By suggesting that "those who nurture, shelter, support and sponsor such forces of violence and terror are as much a threat to us as terrorists themselves", she might eventually succeed in pressurising China to alter its position.

➤ However, with China refusing to budge, it is now hoped that Chinese State Councillor Yang Jiechi, who the leaders decided would travel to India again, would meet National Security Adviser Ajit Doval and discuss the issue further.

BRICS-BIMSTEC Outreach

➤ The other change is that India underscored her changing priorities. India used the summit to reach out to its neighbours by initiating the BRICS-BIMSTEC outreach.

➤ Founded in 1997, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) now includes Nepal and Bhutan apart from Bangladesh, India, Myanmar, Sri Lanka and Thailand.

➤ Set up with the objective of enhancing technological and economic cooperation among South Asian and South-east Asian countries along the coast of the Bay of Bengal, it has been neglected so far by its members.

➤ India has now decided to lead the regional economic cooperation efforts against the backdrop of Pakistan's marginalisation in South Asia. The cancellation of the SAARC summit in Islamabad, with Bangladesh, Bhutan and Afghanistan deciding to stay away like India, has galvanised New Delhi's efforts to look at new ways to foster regional cooperation.

➤ India's outreach to BIMSTEC during the BRICS summit is an important signal that India is serious about its role as a facilitator of economic cooperation in South Asia.

Bilateral ties with Russia

➤ Finally, India used the Goa summit to re-galvanise its long-standing partnership with Russia, which was in danger of losing direction.

➤ Russia's decision to hold military exercises with Pakistan did not go down well with India at a time when it was seeking to diplomatically isolate Pakistan after the Uri terror attacks.

➤ Russia, for its part, has been concerned about India's tilt towards the U.S. In Goa, the two states reaffirmed the strategic nature of their friendship once again.

➤ India signed three major deals worth billions of dollars with Russia: five S-400 Triumf air defence systems, four stealth frigates, and a joint venture to manufacture Kamov-226T utility helicopters in India.

Possible role for India in BRICS future

➤ India has to impart an innovative leadership to the BRICS summit this year by focusing on the issues which have been ailing the global economy due to the partisan policies of the rich nations led by the United States.

➤ Right now, India is having most comfortable situation in terms of both economy and polity among the BRICS nations. All other countries are having serious economic problems. That way, India is better placed to give the leadership for taking concrete steps to some of the decisions which were taken at the 2015 summit at UFA in Russia.

➤ The 2015 summit expressed its disappointment at the prolonged failure by the United States to ratify the IMF 2010 reform package which continues to undermine the credibility, legitimacy and effectiveness of the IMF. Further, the BRICS declaration shared concerns regarding the challenges of sovereign debt restructurings. Debt restructurings have often been too slow and too late thus failing to reestablish debt sustainability and market access in a durable way. India has to take the lead in ensuring that the handling of sovereign debt restructurings be improved to the benefit of the developing countries.

➤ BRICS members are aware of the need for a strong alternative to the existing international financial institutions like IMF, World Bank and ADB. This can be done in phases and to start with, the arrangement can be a supplement to the existing operations of the West backed international financial institutions.

➤ The strategy for the BRICS Economic Partnership that was adopted at 2015 summit, is presently the key guideline for expanding trade and investment, manufacturing and minerals processing, energy, agriculture cooperation, science and technology, connectivity and financial cooperation between the BRICS members.

➤ The Economic Partnership strategy has to be put into action by the joint efforts of NDB, BRICS Business Council, BRICS Think Tank Forums and Inter Bank Cooperation Mechanism. India has to give the lead in preparing a feasibility of developing a BRICS trade, economic and investment cooperation roadmap for the period upto 2020.

➤ BRICS should Prepare a list of priority projects for which investments could be sought from the other four members of the BRICS group.

➤ Investments could be sought for the projects, mostly in infrastructure sector from other member countries Brazil China, Russia and South Africa. At the last summit, Russia also submitted a list of 60 projects in oil and gas, coal, water resources, high tech manufacturing, mining, engineering, aviation, agriculture, transport & logistics, and information technology.

➤ There is scope for investments in India by the BRICS members in Make in India programme. Now India wants to hold a trade fair and investors forum to promote the government's flagship schemes such as Make in India, Digital India, Smart City Project. Start Up India, Stand Up India and National Mission for Clean Ganga. Indian officials feel that there are immense opportunities for the four other BRICS members to be benefited by investing in these innovative projects in India.

Conclusion

BRICS nations noted the global character of current security challenges and threats confronting the international community. They reiterated that international efforts to address these challenges, the establishment of sustainable peace as well as the transition to a more just, equitable and democratic multi-polar international order requires a comprehensive, concerted and determined approach, based on spirit of solidarity, mutual trust and benefit, equity and cooperation, strong

commitment to international law. They acknowledged the central role of the United Nations as the universal multilateral organisation entrusted with the mandate for maintaining international peace and security, advance global development and to promote and protect human rights.

From India's Perspectives, recognising the limits of the BRICS mandate at a time of slowing economies and growing intra-BRICS political divergences, India has tried to reimagine the multilateral forum to serve its larger strategic ends. For India, BRICS is an important platform to showcase to his domestic critics that his foreign policy remains independent of, and not subservient to, the U.S.

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DRAFT BILL ON CHILD ABDUCTION

Context

The Law Commission of India headed by Dr Justice B.S Chauhan in its 263rd Report recommended for the Protection of Children (Inter-Country Removal and Retention) Bill, 2016.

Child adduction is the offence of wrongfully removing, retaining, detaining or concealing a child. Moreover, Child abduction is the situation arises, when any foreign national living in India are going back or Indian live abroad are moving back to India. Situation gets worsen, when parents are migrating to different countries and child is taken along by one parent, without the permission of other.

There are several legal issues confronting the issue of transnational inter-spousal child removal. When a child is abducted by his or her own parent to India, while custody issues are pending determination in the courts of his or her habitual permanent residence abroad, there is little that local law enforcement agencies can do to remedy the situation. This is because there are no codified family laws or specific child custody laws under which these children can be returned to their homes in a foreign jurisdiction.

It is unfortunate that an aggrieved parent with a foreign court order requiring return of the child finds no slot in the Indian legal system.

In the absence of a domestic law on "inter-parental child abduction" in India, very often children of such NRI's who have grown up abroad become silent victims of their parents' marital dispute when they are forcibly brought back by one of the parents.

Then only solution left with parent is to gather conventional evidence to be established fall under the outdated Guardians and Wards Act, 1890. Parents then have to seek resolution of rights of access, custody, guardianship and visitation as a last resort of the proof of their superior parental rights.

Thus, to handle this situation, government of India has proposed Protection of Children (Inter-Country Removal and Retention) Bill, 2016.

The Bill aims at securing the prompt return of children wrongfully removed to or retained in any Contracting State, to ensure that the rights of custody and access under the law of one Contracting State are respected in other Contracting States, and to establish a Central Authority and for matters connected therewith or incidental thereto.

The proposed Bill considers the removal to or the retention of a child in India to be wrongful if it is in breach of rights of custody attributed to a person, an institution, or any other body, either jointly or alone, at a place where the child was habitually resident immediately before the removal or retention. It further stipulates that the removal to or the retention in India of a child is to be considered wrongful where at the time of removal or retention those rights were actually exercised, either jointly or alone, by a person, an institution or any other body, or would have been so exercised, but for the removal or retention.

The draft law mandates setting up of a central authority, to be headed by a joint secretary level officer, where an aggrieved parent can approach for the return of a child. The authority would have the power to decide all such cases.

The Central Authority or any other authority on its behalf shall take all appropriate measures to perform all or any of the following functions, namely:

► To discover the whereabouts of a child who has been wrongly removed to, or retained in, India, and where the child's place of residence in India is unknown, the Central Authority may obtain the assistance of the police to locate the child;

► To prevent further harm to any such child or prejudice to any other interested parties, by taking or causing to be taken, such provisional measures as may be necessary;

► To secure the voluntary return of any such child to the country in which such child had his or her habitual residence or to bring about an amicable resolution of the differences between the person claiming that such child has been wrongfully removed to, or retained in, India, and the person opposing the return of such child to the Contracting State in which such child has his or her habitual residence;

➤ To exchange, where desirable, information relating to any such child, with the appropriate authorities of a Contracting State;

➤ To provide, on request, information of a general character, as to the law of India in connection with the implementation of the Convention in any Contracting State;

➤ To institute judicial proceedings with a view to obtaining the return of any such child to the Contracting State in which that child has his or her habitual residence, and in appropriate cases, to make arrangements for organising or securing or to institute judicial proceedings for securing the effective exercise of rights of access to a child who is in India;

➤ Where circumstances so require, to facilitate the provision of legal aid or advice;

➤ To provide such administrative arrangements as may be necessary and appropriate to secure the safe return of any such child to the Contracting State in which the child has his or her habitual residence;

➤ Such other functions as may be necessary to ensure the discharge of India's obligations under the Convention.

It lays down procedure for securing the return of a child and provides for the Central Authority to apply to the High Court for restoring custody of the child.

It empowers the court to deny custody on certain grounds. It allows the courts in India to recognize decisions of State of the 'habitual residence' of the child. It also states that the Indian court that wants to disregard the interim/final order of the foreign court must record reasons for the same.

What are the law commission recommendations on the said matter?

➤ The 21st Law Commission in its first report on Monday recommended a series of changes in the draft Civil Aspects of International Child Abduction Bill-2016, proposed by the Women and Child Development Ministry, including one-year jail term for wrongful retention or removal of a child from the custody of a parent.

➤ The offenders may include one of the parents or family, relatives and others.

➤ The Protection of Children (Inter-Country Removal and Retention) Bill, 2016", also recommended three months' punishment for wilful misrepresentation or concealment of fact as regards the location or information about the child or for voluntarily prevent the safe return of the child.

➤ As per the law commission, The principles of best interest of the child can be found in the provisions of the Convention on the Rights of the Child, 1989, which came into force on September 2, 1990, and the Preamble and object of the Hague Convention, 1980.

➤ The person, who is allegedly involved in wrongful removal or retention, was fleeing from any incidence of domestic violence.

➤ It also recommended a jail term of one year for any parent or family member found guilty of wrongfully retaining or removing a child from the custody of the other parent.

Way forward

WCD Minister has expressed apprehension over acceding to the Convention at several forums, primarily on two grounds that taking such a decision will not be in the interest of aggrieved women and because the government maintains that there are fewer instances of Indian children being abducted and taken abroad.

In the US and Europe, inter-parental child abduction is a serious offence where the accused parent can go to jail on charges of abduction. Closer home, Sri Lanka, which is a signatory to the Hague Convention, has framed its own rules that allow the court to decide if a child should be sent back to the country from where he was removed. As of now, in most of the matters decided by the Indian court, the criminal offence and its penalties are often not pressed by the aggrieved parent to enable a settlement in the matter in the best interest of the child.

What is Hague Convention?

Hague Convention on Civil Aspects of International Child Abduction desires "to protect children internationally from the harmful effects of their wrongful removal or retention and to establish procedures to ensure their prompt return to the State of their habitual residence, as well as to secure protection for rights of access".

Ninety-four states are party to the Hague Convention but India is not one of them. The question of India's accession to the Convention first came about in 2007, but reached no logical end, when the Civil Aspects of International Child Abduction Bill-2007, to secure the prompt return of wrongly removed or returned children, lapsed before reaching Parliament.

ANTI- GLOBALIZATION MOVEMENT IN EU

Context

Given the problems Europe is experiencing now, with high levels of unemployment, particularly among youth, the recent backlash against the Comprehensive Economic and Trade Agreement (CETA) and Transatlantic Trade and Investment Partnership (TTIP), is symptomatic of growing anti-globalization sentiments across Europe that shows no signs of subsiding.

What is Globalization?

Globalization is the process of international integration arising from the interchange of world views, products, ideas, and other aspects of culture. In the economic terms, it is the process by which businesses or other organizations develop international influence or start operating on an international scale.

What is Anti Globalization?

The anti-globalization movement, or counter-globalization movement, is a social movement critical of the globalization of corporate capitalism. Anti-globalization Movement is a disputed term that gained widespread media attention after protests against the World Trade Organization (WTO) in Seattle, WA in late November and early December 1999.

Fig. 7

Fig. 7

Why was it in the news recently?

Europe's public services, from health, to education, to social welfare, and beyond, are under serious threat from the EU's free trade agreements with Canada (CETA) and the ongoing TTIP negotiations with United States of America. Given the problems Europe is experiencing now, with high levels of unemployment, particularly among youth, the recent backlash against the Comprehensive Economic and Trade Agreement, is symptomatic of growing anti-globalization sentiments across Europe that shows no signs of subsiding.

What is Comprehensive economic and trade agreement (CETA)?

It stands for the Comprehensive Economic and Trade Agreement, and it represents one of the 'new generation' of trade treaties on behalf of big business.

► CETA is a major new business and trade deal that was negotiated in secret between the EU and Canada over five years from 2009 to 2014.

► It offers EU firms more and better business opportunities in Canada and support jobs in Europe.

► It will remove customs duties, end restrictions on access to public contracts, open-up the services market, offer better conditions for investors and help prevent illegal copying of EU innovations and traditional products.

► The agreement upholds Europe's standards in areas such as food safety and worker's rights. It contains all the guarantees to make sure that the economic gains do not come at the expense of democracy, the environment or consumers' health and safety.

➤ The European Parliament will need to give its consent to the agreement before it can be provisionally applied. Provisional application allows European businesses and consumers to reap the benefits of the agreement early such as:

a) Letting EU business bid for Canadian public contracts.

b) Stepping up regulatory cooperation (sectors such as, electrical equipment, toys, machinery, measuring equipment).

c) Protecting European innovators and traditional products.

d) Streamlining trade in services (sectors such as, financial services, telecommunications, energy, maritime transport).

e) Promoting and protecting investment.

CETA will increase Canadian-EU trade by 20% and boost the EU economy by €12bn (£10.9bn) a year and Canada's by C$12bn (£7.4bn). The deal reduces Canada's reliance on the US and gives the EU a first trade pact with a G7 economy when its credibility has taken a knock from Britain's decision to leave.

What are the issues involved in CETA?

➤ While the deal pledged to bring multibillion euro benefits to both the EU and Canada, there were many components that had alarm bells ringing: in particular, the Investor-state dispute settlement courts that the deal would have brought in, designed to provide a route for foreign investors to protect their interests in the region.

➤ These opaque systems, often ensconced in bilateral and other investment treaties, have for many years been criticized for not only providing foreign firms with advantages not accorded to domestic ones, but also with providing firms the ability to trample on legislation brought in by democratic parliaments (such arbitration has been used to challenge everything from plain cigarette packaging to legislation in South Africa designed to rectify the abuses of apartheid).

➤ The EU-Canada agreement had safeguards built in recognition of the concerns (including a code of conduct and increased transparency), but its proponents failed to answer the fundamental question of why in the EU and Canada, with well-functioning judicial systems, such a separate court system was needed at all.

What is EU-US trade agreement TTIP?

➤ Transatlantic Trade and Investment Partnership is a proposed trade agreement and the subject of an ongoing series of negotiations between the EU and US aimed at creating the world's biggest free trade zone spanning the north Atlantic.

➤ This stands for more responsible approach responds to new economic realities in line with the EU's foreign policy. Based on three key principles - effectiveness, transparency and values - it ensures trade policy benefits as many people as possible.

➤ A new trade and investment strategy for the European Union, entitled 'Trade for All: Towards a more responsible trade and investment policy'.

➤ This builds on Europe's excellent trade track record. EU companies export nearly as much as China to the rest of the world and more than firms in the United States or any other country.

➤ More than 30 million jobs already depend on exports outside the EU. 90% of future global growth will happen outside Europe's borders. A new strategy that will make trade agreements more effective and that will create more opportunities means supporting jobs in Europe.

➤ This strategy is also a direct response to the current intense debate on trade in the EU – including on the Transatlantic Trade and Investment Partnership (TTIP) that is being negotiated with the United States.

Critics of TTIP

➤ Critics call it as "An assault on European and US societies by transnational corporations."

➤ TTIP negotiations process has been secretive and undemocratic since the starting. This secrecy is on-going, with nearly all information on negotiations coming from leaked documents and Freedom of Information requests.

➤ ***The National Health Services:*** Public services, especially the NHS, are in the firing line. One of the main aims of TTIP is to open up Europe's public health, education and water services to US companies. This could essentially mean the privatisation of the NHS.

➤ ***Food and environmental safety:*** TTIP's 'regulatory convergence' agenda will seek to bring EU standards on food safety and the environment closer to those of the US. But US regulations are much less strict, with 70 per cent of all processed foods sold in US supermarkets now containing genetically modified ingredients. By contrast, the EU allows virtually no GM foods. The US also has far laxer restrictions on the use of pesticides. It also uses growth hormones in its beef which are restricted in Europe due to links to cancer.

➤ ***Banking regulations:*** TTIP cuts both ways. The UK, under the influence of the all-powerful City of London, is thought to be seeking a loosening of US banking regulations. America's financial rules are tougher than ours. They were put into place after the financial crisis to directly curb the powers of bankers and avoid a similar crisis happening again. TTIP, it is feared, will remove those restrictions, effectively handing all those powers back to the bankers.

➤ ***Privacy:*** Remember ACTA (the Anti-Counterfeiting Trade Agreement)? It was thrown out by a massive majority in the European Parliament in 2012 after a huge public backlash against what was rightly seen as an attack on individual privacy where internet service providers would be required to monitor people's online activity.

➤ ***Jobs:*** The EU has admitted that TTIP will probably cause unemployment as jobs switch to the US, where labour standards and trade union rights are lower. It has even advised EU members to draw on European support funds to compensate for the expected unemployment.

➤ ***Democracy:*** TTIP's biggest threat to society is its inherent assault on democracy. One of the main aims of TTIP is the introduction of Investor-State Dispute Settlements (ISDS), which allow companies to sue governments if those governments' policies cause a loss of profits. In effect it means unelected transnational corporations can dictate the policies of democratically elected governments.

What is the anti-globalization movement stands for?

➤ The anti-globalization movement is a social movement critical of the globalization of corporate capitalism. The movement is also commonly referred to as the global justice movement, alter-globalization movement, anti-globalist movement, anti-corporate globalization movement, or movement against neoliberal globalization.

➤ Many anti-globalization activists call for forms of global integration that better provide democratic representation, advancement of human rights, fair trade and sustainable development and therefore feel the term 'anti-globalization' is misleading.

➤ People opposing globalization believe that international agreements and global financial institutions, such as the International Monetary Fund (IMF), European Union (EU) and the World Trade Organization (WTO), undermine local decision-making. Corporations that use these institutions to support their own corporate and financial interests can exercise privileges that individuals and small businesses cannot, including the ability to:

◘ Move freely across borders,

◘ Extract desired natural resources, and

◘ Use a wide variety of human resources.

➤ The movement aims for an end to the legal status of 'corporate personhood' and the dissolution of free market fundamentalism and the radical economic privatization measures of the World Bank, EU, the IMF, and the World Trade Organization.

What are its implications for India?

➤ The CETA deal will have implications for India too. The stalled negotiations on the India-EU Free Trade Agreement, which commenced in 2007, held up by a lack of consensus on issues such as mode of access for services professionals on the EU side, and FDI liberalization on the Indian side.

➤ It could also hit, indirectly, hopes for a fruitful India-U.K. Free Trade Agreement. Observers in Britain have pointed out that the struggles over CETA don't bode well for Britain's ability to negotiate favorable terms with the EU as it attempts to extract itself from the union, which could have a serious impact on the 800 Indian businesses in the U.K., many of which sell their products and services in the EU.

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NATIONAL MENTAL HEALTH SURVEY 2015-2016

Context

National Mental Health Survey has been released recently by the National Institute of Mental Health and Neurosciences (NIMHANS).

Mental illness refers to a wide range of mental health conditions — disorders that affect your mood, thinking and behavior. Examples of mental illness include depression, anxiety disorders, schizophrenia, eating disorders and addictive behaviors.

Mental illness results from complex interactions between the mind, body and environment. Factors which can contribute to mental illness are:

► long-term and acute stress

► biological factors such as genetics, chemistry and hormones

► use of alcohol, drugs and other substances

► cognitive patterns such as constant negative thoughts and low self esteem

► social factors such as isolation, financial problems, family breakdown or violence

Fig. 7

Mental health and its significance in respect with India

► Mental disorders contribute to a significant load of morbidity and disability, even though few conditions account for an increasing mortality. Conditions related to the brain and minds are acknowledged to be on the increase in recent times. This is probably due to the growing awareness in society, improved recognition, variations in disease patterns, changing lifestyles and biological vulnerabilities. Mental disorders affect everyone, irrespective of age, gender, residence and living standards, even though some groups are at a higher risk for certain illnesses; only the impact varies. For example, mental disorders among children, depression among pregnant mothers, and dementia among the elderly are well known.

► Mental disorders are known to be caused by a complex interaction of biological, social, environmental, cultural and economic factors.4 In countries like India, the social determinants of health like employment, education, living standards, environment, access, equity and others contribute significantly to both causation and recovery.

► Persons with mental disorders are also known to be associated with a wide range of social and societal problems if their illness is unrecognised or inappropriately managed.

► Growing evidence from research has demonstrated the close association of mental disorders as precursors / risk factors/ co-morbid conditions /consequences of a wide range of acute and chronic conditions like Non-Communicable Diseases, injury and violence, maternal and child health conditions. For example, depression and cancer are known to coexist, while anxiety disorders are linked to the occurrence of cardiovascular disorders. Non-recognition of associated mental health problems often leads to delayed recognition and recovery.

► From a cultural perspective, mental disorders are associated with a considerable amount of stigma in Indian society, leading to neglect and marginalisation.

Mental Health and Sustainable Development goals

Within the health related SDGs, two targets are directly related to mental health and substance abuse.

Target 3.4 "By 2030, reduce by one third premature mortality from Non communicable diseases through prevention and treatment and promote mental health and well-being."

Target 3.5 requests that countries: "Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol."

Manifestation of the National mental health survey

India recently announced its mental health policy and an action plan; these along with the proposed mental health bill attempts to address the gaps in mental health care. In addition, recommendations from National Human Rights Commission and directives from the Supreme Court of India have accelerated the pace of implementation of mental health services. Several advocacy groups, including media, have highlighted need for scaling up services and providing comprehensive mental health care. To further strengthen mental health programmes and develop data driven programmes, the Ministry of Health and Family Welfare, Government of India commissioned NIMHANS to plan and undertake a national survey to develop data on prevalence, pattern and outcomes for mental disorders in the country. Furthermore, a systematic assessment of resources and services that are available to meet the current demands was a felt need. Thus, the National Mental Health Survey was undertaken by NIMHANS to fulfill these objectives across 12 selected states of India during 2015 – 16. After making adequate preparations for nearly 12 months, the study was implemented on a nationally representative sample adopting a uniform and standard methodology. Data collection was undertaken by well-trained staff using hand held devices from 39,532 individuals across the states. Simultaneously, mental health systems assessment undertaken using secondary data sources and qualitative methods, set down indicators with the active engagement of stake holders. The findings from NMHS 2015-16 are presented in two parts: the first part provides data on the prevalence, pattern and outcomes, while the second one reports the current status of mental health systems. These reports provide a detailed description of the need, focus, methods, results, implications along with recommendations.

Findings of the Survey are:

► At least 13.7% of India's general population has various mental disorders; 10.6% of them require immediate interventions.

► Nearly 10% of the population has common mental disorders, 1.9% of the population suffers from severe mental disorders.

► The prevalence of mental morbidity is found to be very high in urban centers, where there is a higher prevalence of schizophrenia, mood disorders and neurotic or stress related disorders. This disturbing scenario could be due to fast-paced lifestyles, experiencing stress, complexities of living, a breakdown of support systems and challenges of economic instability.

► The overall current prevalence estimate of mental disorder was 10.6% in the total surveyed population, significant variations in overall morbidity ranged from 5.8% in Assam to 14.1% in Manipur. Assam, Uttar Pradesh and Gujarat reports prevalence rates less than 10% in 8 of the 12 states. The prevalence varied between 10.7% and 14.1%.

► This study covers all important the aspects of mental illness including substance abuse, alcohol use disorder, tobacco use disorder, severe mental illness, depression, anxiety, phobia and post traumatic stress disorder among others had a sample size of the 34, 802 individuals.

► Primary data collection was done through computer generated random selection by a team of researchers, and local team of co-investigators and field workers in the 12 states namely- Karnataka, Punjab, Uttar Pradesh, Tamil Nadu, Kerala, Jharkhand, west Bengal, Rajasthan, Gujarat, Madhya Pradesh, Chhattisgarh, Assam and Manipur.

➤ Common mental disorders such as depression, anxiety and substance use are as high as 10% in the total population.

➤ Almost 1 in 20 suffers from depression; it is found to be higher in females in the age-group 40-49 years.

➤ 22.4% of the population above 18 years suffers from substance use disorder.

➤ The highest was contributes by tobacco and alcohol use disorder.

➤ Nearly 1.9% of the population is affected by severe mental disorders. These are detected more among males in urban areas.

➤ While prevalence of mental illness is higher among males (13.9%) as compared to females (7.5%), certain specific mental illness like mood disorders (depression, neurotic disorders, phobic anxiety etc.) are more in females.

➤ Neurosis and stress related illness is also seen to be more in women.

➤ Prevalence in teenagers aged between 13 and 17 years is 7.3%.

Prevalence of mental disorders in different states

Manipur- 14.1%, Madhya Pradesh- 13.9%, Punjab- 13.4%, West Bengal- 13%, Tamil Nadu- 11.8%, Chhattisgarh- 11.7%, Kerala- 11.4%, Jharkhand- 11.1%, Rajasthan- 10.7%, Gujarat- 7.4%, Uttar Pradesh-6.1%, Assam- 5.8%.

What are the treatment gaps and its impact?

➤ Despite three out of four persons experiencing severe mental disorders, there are huge gaps in the treatment.

➤ Apart from epilepsy, the treatment gap for the mental health disorders is more than 60%. In fact the economic burden of the mental disorder is so huge that affects families have to spend nearly Rs. 1000-Rs. 1500 a month mainly for treatment and to access care.

➤ Due to the stigma associated with mental disorders, nearly 80% of those with, mental disorders had not received any treatment despite being for ill for over 12 months. Poor implementation of schemes under the National Mental Health Programme is largely responsible for this.

➤ There is also a paucity of mental health specialist, pointing out that, mental disorders are a low priority in the public health agenda. In India, the health information system itself does not priorities mental health.

➤ Mental health financing needs to be streamlined. There is a need to constitute a national commission on mental health comprising professionals from mental health, public health, social science and the judiciary to oversee, facilitate support and review mental health policies.

About the (NIMHANS)

• The National Institute of Mental Health and Neuro Sciences (NIMHANS) is a multidisciplinary institute for patient care and academic pursuit in the field of mental health and neurosciences.

• NIMHANS is synonymous with providing high standards of clinical care, quality training and cutting-edge research in the frontier areas. Combined priorities for comprehensive patient care, manpower development and research, stem from the commitment to an integrated and multidisciplinary approach which addresses societal needs. The advances in genomics, computational neuroscience, mathematical modelling, neuroimaging, molecular biology and a host of new disciplines including public health, are being translated to help humanity in need and promote the growth of knowledge.

• A special feature of this Institute since its inception is the combination of research and training with promotive, preventive and curative aspects of clinical services in Mental Health and Neurosciences.

• The manpower development programmes at NIMHANS reflect the strides in fusing together and nurturing behavioural sciences, neurosciences, basic biological sciences and ancient health systems.

• The Institute provides inputs to the Central and State Governments in areas including the establishment of new psychiatric facilities, improvement of existing facilities and strategizing a national programme for mental health.

• The Institute has emerged as the nodal centre for evolving national policies in the field of mental health, neurosciences and injury. This exemplifies a unique model of successful partnership between

the Union and State Governments (Ministry of Health and Family Welfare).

- NIMHANS- the 'institute of national importance' has made significant progress and is a centre for excellence in mental health and neuroscience in the country. NIMHANS has produced more than 1,000 Psychiatrists, about 600 Clinical Psychologists and Psychiatric Nurses so far who are working in both national and international context.

Conclusion

This huge burden of mental, behavioural and substance use disorders, in India, calls for immediate attention of political leaders, policy makers, health professionals, opinion-makers and society at large. Most significantly, mental health should be given higher priority in the developmental agenda of India. All policies and programmes in health and all related sectors of welfare, education, employment and other programmes should include and integrate mental health agenda in their policies, plans and programmes.
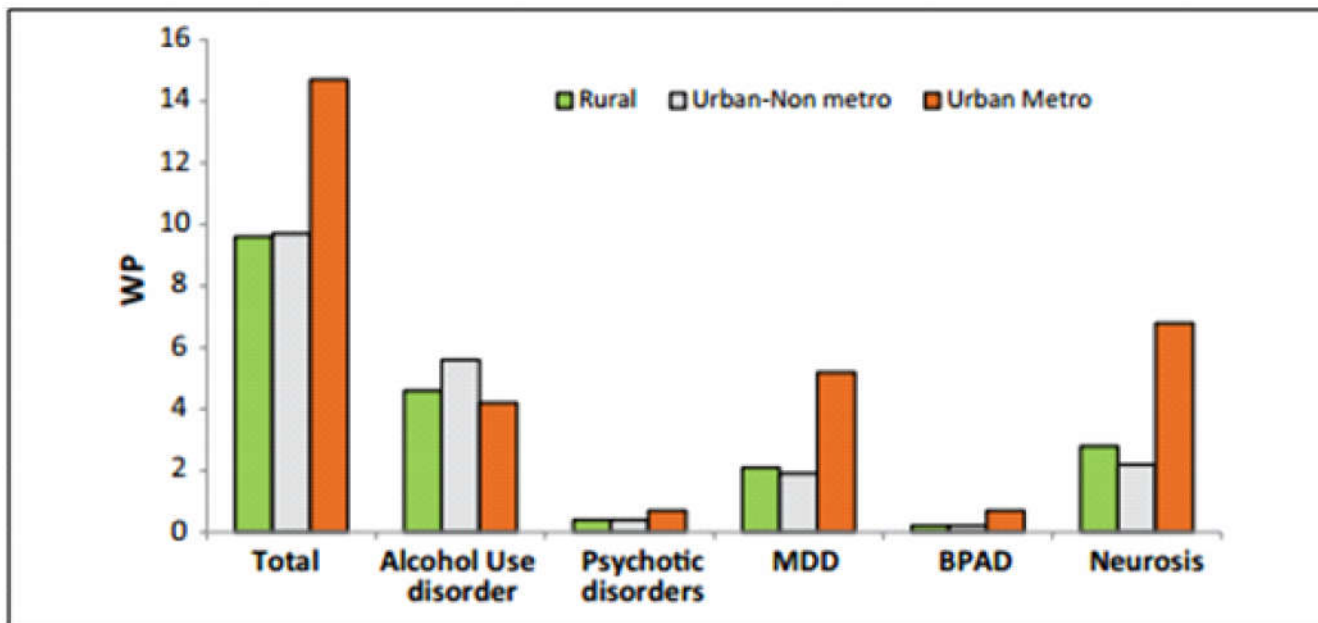

Fig. 7

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THE GLOBAL GENDER GAP REPORT 2016

Context

The Global Gender Gap Report was recently published by the World Economic Forum, the index measure gender equality.

World Economic Forum (WEF) was established in 1971 as a not-for-profit foundation and is headquartered in Geneva, Switzerland. It is independent, impartial and not tied to any special interests. The Forum engages the foremost political, business and other leaders of society to shape global, regional and industry agendas.

The Global Gender Gap Index was first introduced by the WEF in 2006 as a framework for capturing the magnitude of gender-based disparities and tracking their progress over time. It quantifies the magnitude of gender disparities and tracks their progress over time, with a specific focus on the relative gaps between women and men across four key areas: health, education, economy and politics.

What was it in the news?

Global Gender Gap Report 2016 (GGGR) released by World Economic Forum (WEF) finds that the global workplace gender gap is getting bigger and economic parity between the sexes could take 170 years. India has been ranked 87th out of 144 countries in 2016 climbing 21 spots from 108th position in 2015.

Global Gender Gap Report

The World Economic Forum (WEF) releases Global Gender Gap Report every year.

➤ WEF's Gender Gap Report-2016 included 144 countries in the report, which have data available for a minimum of 12 indicators out of the 14 that make up the Index.

➤ Global Gender Gap Report 2016 grouped countries into eight geographical groupings instead of six of 2015 report: East Asia and the Pacific; Eastern Europe and Central Asia; Latin America and the Caribbean; Middle East and North Africa; North America; South Asia; Sub-Saharan Africa; and Western Europe.

➤ The Global Gender Gap Index are formed on three basic concepts.

◘ The Index focuses on measuring gaps rather than levels.

◘ It captures gaps in outcome variables rather than gaps in input variables.

◘ It ranks countries according to gender equality rather than women's empowerment.

➤ The Global Gender Gap Index examines the gap between men and women in four fundamental categories which is known as sub-indexes and the fourteen different indicators that composes them. The report is an annual benchmarking exercise that measures progress towards **Parity between men and women in four areas:**

◘ Educational attainment

◘ Health and survival

◘ Economic opportunity

◘ Political empowerment

Fig. 7

Economic Participation and Opportunity

➤ Ratio: female labour force participation over male value

➤ Wage equality between women and men for similar work

➤ Ratio: female estimated earned income over male value

➤ Ratio: female legislators, senior officials and managers over male value

➤ Ratio: female professional and technical workers over male value

Educational Attainment

➤ Ratio: female literacy rate over male value

➤ Ratio: female net primary enrolment rate over male value

➤ Ratio: female net secondary enrolment rate over male value

➤ Ratio: female gross tertiary enrolment ratio over male value

Health and Survival

➤ Sex ratio at birth (converted to female-over-male ratio)

➤ Ratio: female healthy life expectancy over male value

Political Empowerment

➤ Ratio: females with seats in parliament over male value

➤ Ratio: females at ministerial level over male value

➤ Ratio: number of years with a female head of state (last 50 years) over male value

What are the key findings of the latest Global Gender Gap Report 2016?

➤ Top 5 Countries in 2016 Report: Iceland (1st), Finland (2nd), Norway (3rd), Sweden (4th) and Rwanda (5th).

➤ The **global workplace gender gap** is getting wider and economic parity between the sexes could take as many as 170 years to close after a dramatic slowdown in progress. In 2015, projections based on the Global Gender Gap Report data suggested that the economic gap could be closed within 118 years, or by 2133. But now global economic gender gap will not close until year 2186.

Reason - The slowdown is partly because of chronic imbalances in salaries and labour force participation, despite the fact that, in 95 countries out of the 144 that are ranked, women attend university in equal or higher numbers than men

➤ The report finds that progress towards parity in the key economic pillar of gender has slowed dramatically with the gap—which stands at 59%—now larger than at any point since 2008.

Reasons - Behind this decline are a number of factors. One is salary, with women around the world on average earning just over half of what men earn despite, on average, working longer hours, taking paid and unpaid work into account.

➤ Another persistent challenge is stagnant labour force participation, with the global average for women at 54%, compared to 81% for men.

➤ **Education:** The education gender gap has closed 1% over the past year to over 95%, making it one of the two areas where most progress has been made to date.

➤ **Health:** Health and survival, the other pillar to have closed 96% of the gap, has deteriorated marginally. Two-thirds of the 144 countries measured in this year's report can now claim to have fully closed their gender gap in sex ratio at birth, while more than one-third has fully closed the gap in terms of healthy life expectancy.

➤ **Political Empowerment:** The pillar where the gender gap looms largest, political empowerment, is also the one that has seen the greatest amount of progress since the WEF began measuring the gender gap in 2006. This is now over 23%; 1% greater than 2015 and nearly 10% higher than in 2006. However, improvements are starting from a low base: only two countries have reached parity in parliament and only four have reached parity on ministerial roles, according to the latest globally comparable data.

➤ **Economic Opportunity:** The slow rate of progress towards gender parity in the economic realm, poses a particular risk given the fact that many jobs that employ a majority of women are likely to be hit proportionately hardest by the coming age of technological disruption known as the Fourth Industrial Revolution. Women and men must be equal partners in managing the challenges our world faces—and in reaping the opportunities. Both voices are critical in ensuring the Fourth Industrial Revolution delivers its promise for society.

India related key findings:

➤ India (ranked 87) has overtaken China which is ranked 99th.

➤ The improvement in India's ranking is driven largely by major improvements in education, where it has managed to close its gap entirely in primary and secondary education.

◻ **Education:** In case of education attainment, India has made considerable strides moving up from 125th rank in 2015 to 113th in 2016.

◻ **Economic Participation:** On economic participation and opportunity too, India has moved up to 136th rank in 2016, from 139th in the year 2015.

◻ **Health:** On health and survival, India has made little progress moving up by one place to 142nd rank compared to 141st in 2015.

◻ **Political Empowerment:** On political empowerment, India continues to be ranked 9th in the world.
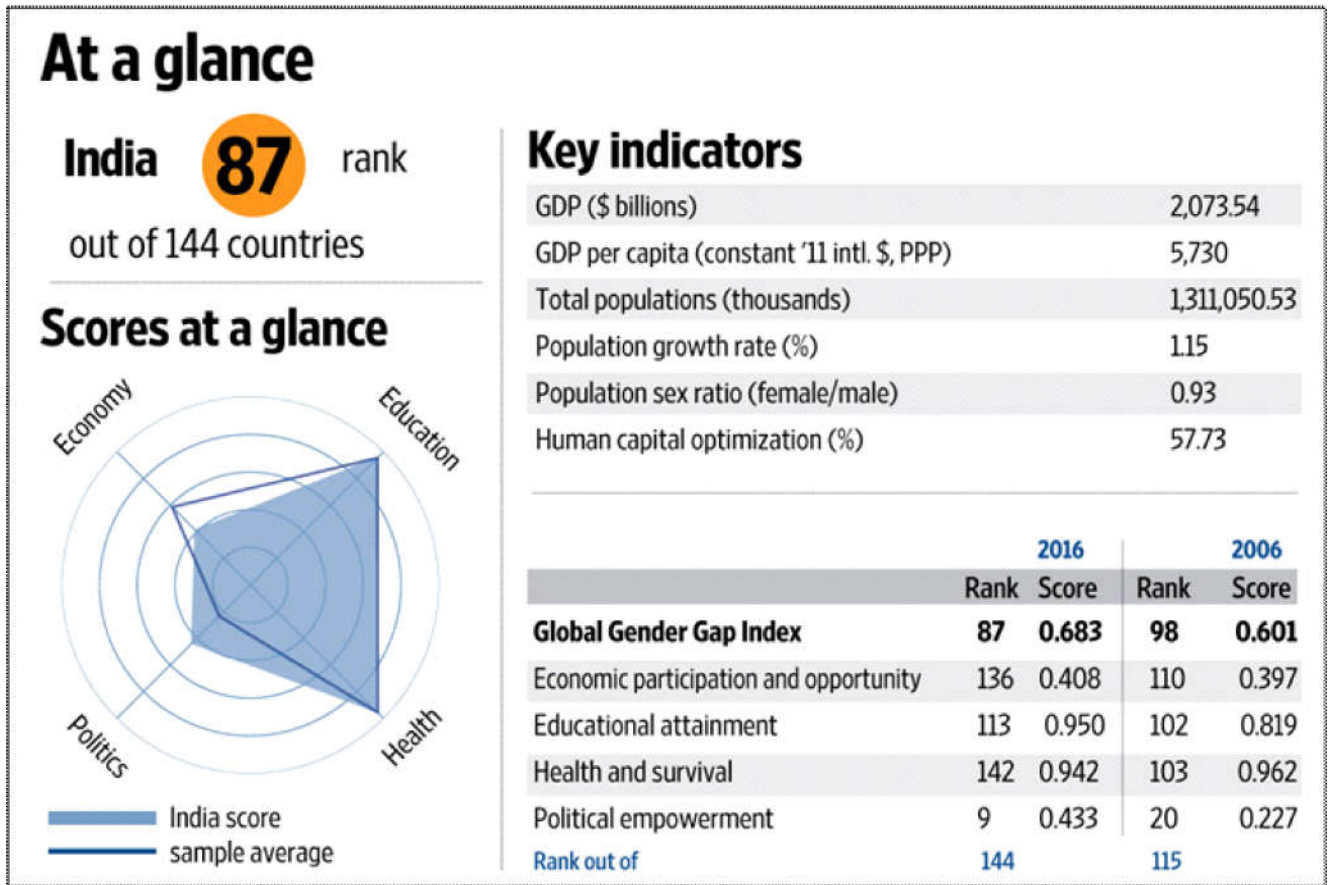

At a glance

India 87 rank

out of 144 countries

Scores at a glance

India score
sample average

Key indicators

GDP ($ billions)	2,073.54
GDP per capita (constant '11 intl. $, PPP)	5,730
Total populations (thousands)	1,311,050.53
Population growth rate (%)	1.15
Population sex ratio (female/male)	0.93
Human capital optimization (%)	57.73

	2016 Rank	2016 Score	2006 Rank	2006 Score
Global Gender Gap Index	87	0.683	98	0.601
Economic participation and opportunity	136	0.408	110	0.397
Educational attainment	113	0.950	102	0.819
Health and survival	142	0.942	103	0.962
Political empowerment	9	0.433	20	0.227
Rank out of	144		115	

Fig. 7

India is also among a group of countries that have made key investments in women's education but have generally not removed barriers to women's participation in the workforce and are thus not seeing returns on their investments in terms of development of one half of their nation's human capital. This group also includes Iran, Islamic Republic, the United Arab Emirates and Chile. These countries have an educated but untapped talent pool and would have much to gain from women's greater participation in the workforce.

The report shows that there remain huge differences in the opportunities for women in the best and worst performing countries around the world.

Conclusion

The WEF's Global Gender Gap Report 2016 provides a comprehensive overview of the current state of the global gender gap and of efforts and insights to close it. According to WEF, women are one-half of the world's population and evidently deserve equal access to health, education, economic participation and earning potential, and political decision-making power.

The Global Gender Gap Report 2016 provides a comprehensive overview of the current state of the global gender gap and of efforts and insights to close it. The Index points to potential role models by revealing those countries that—within their region or their income group— are leaders in having divided resources more equitably between women and men than other countries have, regardless of the overall level of resources available.

The gender gap in India has narrowed down. But India still remains one of the worst countries in the world for women in terms of labour force participation, income levels as well as health and survival. India has closed its gender gap by 2% in a year (2016), but much work remains to be done to empower women in the economic sphere. India continues to rank third-lowest in the world on Health and Survival, remaining the world's least-improved country over the past decade.

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INDIA-RUSSIA DEFENCE RELATION

Context

Ramping up defence ties, India and Russia on announced deals worth about Rs. 43,000 crores for purchase of state-of-art Russian air defence systems, collaboration in making four stealth frigates and setting up facility for joint production of Kamov helicopters.

India Russia strategic partnership stands on five major components: politics, defence, civil nuclear energy, anti-terrorism cooperation and space. India has long standing and wide ranging cooperation with Russia in the field of Defence.

Defence cooperation is the main pillar of India-Russia strategic partnership which is guided by the programme for Military Technical Cooperation, chaired by the Defence Ministers of the two countries, which is valid till 2020.

The partnership further ensures to strengthen the military and technical cooperation in the sphere of research and development, production and after sales support of armament systems and various military equipments. The two sides also have periodic exchanges of armed forces personnel and military exercises.

Besides, in recent years, a sixth component, economic, has grown in importance with both countries setting a target for US$30 billion bilateral trade by 2025.

On the sidelines of the BRICS Summit, India's and her "old friend" Russia signed 16 agreements.

Russia-India military-technical cooperation further secured S-400 "Triumph" anti-aircraft missile systems.

Fig. 7

India - Russia Coordination in Defence Sector

▶ Russia is India's most important and reliable defence partner. It is likely to remain the principal source of supply of defence equipment for India in the foreseeable future. Russia is the only country with which India has an **Inter-Governmental Commission on Military Technical Cooperation** at the ministerial level.

▶ After independence, India imported large quantities of defence equipment from UK, European countries and the Soviet Union.

▶ Due to deteriorating economic condition and disintegration of Soviet Union in 1991, India's security and strategic interests were adversely impacted. Russian Defence supplies to India declined to great extent. With pressure from USA, Russia cancelled the cryogenic engine deal.

▶ After several years of frozen relations, a coming thaw shows a veritable increase in Indian Russian defense ties.

▶ The first project under Make in India programme was a joint venture between the state owned corporation Rostec and Hindustan Aeronautics Limited (HAL) for the assembly of the Ka-226 combat helicopters.

▶ In recent move the two countries are coming closer for signing a stalled 4 billion dollar project for joint development of their 5th generation fighter aircraft and upgrades for the Su-30MKI Super Sukhoi with advanced avionics and weapons.

▶ In recently held exhibition in Russia, India has also agreed to lease two **Akula** class submarines which will be known as **INS Chakra** after induction into the Indian Navy. Russia has offered its latest nuclear aircraft carrier Storm to India. In the Indian Navy's future projects, Russia is expected to have a crucial role in partnering with Indian Defense Companies to build six submarines.

▶ As per the Defence Ministry, during the last three years 67 defense contracts have been signed with vendors from foreign countries, out

of which **18 contracts are from Russia,** 17 from the US, 13 from Israel, 6 from France and 13 are with others. Defence Ministry has also asserted to double India's defense exports as soon as possible.

➤ India is not interested to work with the countries that are reluctant to participate in 'Make in India' program which is evidenced from falling expenditure from capital acquisition year wise. India spent 53% of its total capital expenditure on foreign acquisition in 2013-14, falling to 36% in 2015-16 and is expected to further drop in the current financial year. Thus, India will lean towards those countries that would agree to either set up bases in India or are willing for meaningful transfer of technology.

➤ The Indian Navy would be much inclined to engage with the highly professional Russian Navy, much beyond the largely symbolic India-Russia biennial **'Indra'** series of combined naval exercises.

➤ Furthermore, Russia could potentially play a crucial role in maritime security and safety in the Indian Ocean region. This would augur well for the 'inclusive' approach to regional 'net security' and stability involving all stakeholders, a mantra which India and the other regional countries have collectively adopted in regional multilateral institutions like the **Indian Ocean Rim Association (IORA)** and the **Indian Ocean Naval Symposium (IONS)."**

What are the key agreements signed recently?

Here are the key agreements the two nations signed:

➤ Deal for S-400 Triumf air defence systems from Russia worth over $5 billion. The long-range air defence missile system has th the capability to destroy incoming hostile aircraft, missiles and even drones at ranges of up to 400 km. India and Russia have been in talks for over a year for the purchase of at least five systems of S-400 that will be a game changer in the region.

➤ Another important deal was for four Admiral Grigorovich-class (Project 11356) guided-missile stealth frigates.

➤ A $500 million push into the Indian infrastructure space, along with an equal investment by the newly formed National Infrastructure Investment Fund (NIIF), to form a $1 billion 'Russian Indian Investment Fund'.

➤ Announcements were also made to boost ties in sectors like trade and investment, hydrocarbons, space and smart cities. This will help advance infrastructure partnership.

➤ A joint venture to build Russian Kamov helicopters in India. The plan is to build at least 200 helicopters the defence forces need, and is part of Modi's drive to build a defence industrial base in India.

➤ Joint agreement on shipbuilding and specialist training in Andhra Pradesh.

➤ The two leaders also dedicated the unit two of Kudankulum nuclear power plant and witnessed foundation laying of its Unit 3 and 4. Modi said the dedication of Kudankulum 2 and laying of foundation concrete were examples of tangible results of India-Russia cooperation in the field.

➤ Zero tolerance policy towards terrorism and setting up of a Science and Technology Commission.

Other Important agreements Included:

➤ A memorandum of understanding to develop transport logistics system

➤ An agreement on education and training

➤ An MoU on urban development and smart city projects

➤ A pact on cooperation between Indian and Russian railways

➤ Announcement in relation to successful execution of documents between Rosneft and Essar for oil

➤ Space cooperation between Russian space Corporation and ISRO

Implications of Indo Russia Deal

➤ India appreciated Russia's understanding and support of India's actions to fight cross-border terrorism, an oblique reference to India's surgical strike across the LoC targeting terror launch pads.

➤ Russia's clear stand on the need to combat terrorism mirrors India's Stance.

➤ Both India and Russia have close cooperation in fighting terrorism.

➤ On trade ties, both the countries continue to expand, diversify and deepen economic engagement. Businesses and industry between our two countries are connected more deeply today. Trade and investment ties are on the upswing.

➤ With Russia's backing, India hope to fast track India's association with Eurasian Economic Union Free Trade Agreement.

► Success of the India-Russia bilateral summit "shines a spotlight on the abiding strength of India-Russia strategic partnership."

► It also highlights our strong convergence of views and positions on pressing international and regional issues.

► Both countries also agreed to work closely to respond to the challenges posed by the unsettled nature of the global economic and financial markets.

► Close collaboration at the United Nations, BRICS, East Asia Summit, G-20 and Shanghai Cooperation Organization makes our partnership truly global, both in its scope and coverage.

Conclusion

India's new found closeness with the United States is only a perception. The reality is, India was under immense pressure from the US to take a stand against Russia in favor of Ukraine. But, India resisted all such pressure and firmly backed Russia.

Also, it is a fact that the US helped India lose out in obtaining a **Nuclear Supplier's Group** waiver in 2008, but if we go through the records, it is only Russia that has benefited from this waiver, very much to the contention of the United States. India's entry into the Missile Technology Control Regime will also benefit Russia the most.

Experts are of the view that Russian-origin submarines, armored vehicles, missiles, submarines, aircraft, helicopters, aircraft carrier, and other assorted systems constitute the backbone of India's military capability. Going by past experience, these will remain in service for the next several decades.

Moreover, of late, Russia has made a conscious effort to regain the confidence of Indian armed forces by providing prompt servicing of equipments which is of praising nature. Therefore, Russian support in ensuring operational serviceability of the equipment, including repair, refit and upgrades would also be of crucial importance for many more years to come.

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MISCELLANEOUS NEWS

Context

Hereby compiling the important short notes of October(15 to 31), 2016.

A. E- POSTAL BALLOTS

➤ The Government has issued Notification amending rule 23 of the Conduct of Elections Rules, 1961 enabling service voters, including armed forces personnel, to cast their vote in elections through e-postal ballot. In the past, two-way electronic transmission has not been recommended by the Election Commission for security and secrecy reasons.

Background

➤ The difficulties and hardships encountered by the service voters, especially by the armed forces personnel serving the border and remote areas of the country, have been receiving the attention of the Government in recent times. The issue was also agitated before the Hon'ble Supreme Court, pleading for creating effective mechanism for the Armed Forces Personnel (AFP) and their families to exercise their right to vote easily and effectively.

➤ In the above backdrop, the Government approached the Election Commission(EC) with a view to mitigate the difficulties faced by service voters in the matter of exercising their franchise. The technical team of the EC has developed a system whereby blank postal ballot could be electronically transmitted to the voter, namely, e-postal ballot system.

Who are the beneficiaries?

On a pilot basis, e-postal ballot system has been introduced for service voters consisting of -

➤ Armed police forces of the Union;

➤ Other forces subject to the provisions of the Army Act, 1950;

➤ Armed forces of a State serving outside that State; and

➤ Those employed under the Government of India in a post outside India.

How is e-Postal Ballot effective?

➤ Under this system a blank postal ballot paper would be transmitted to voters electronically. Voters entitled to postal ballot can download the postal ballot and print the blank postal ballot. After marking his vote in the blank postal ballot, the same would be returned to the concerned Returning Officer by post as in the present system of postal ballot.

➤ This would cut short the delay experienced in the present system in two-way transmission of ballot paper by the postal services.

B. RICE (BES03) - PROTEIN-ENRICHED RICE VARIETY DEVELOPED BY IGKV

Very high rate of malnutrition is prevalent among preschool children in tribal areas showing conditions like being underweight and stunted growth, which indicates a critical situation. Over five lakh children in the state are underweight, with tribal districts like Bastar, Dantewada, Kondagaon and Narayanpur having a comparatively higher rate of malnourishment then other districts.

In the past, Government has been making several efforts with schemes like 'Vazan Tyohar' (weight festival) and nutritious meal week to overcome the malnutrition menace.

The Women and Child Development Department informed that malnutrition rate in Chhattisgarh has declined to 29.8 per cent from 47.1 per cent registered in the National Family Health Survey 2005-06 (weight-based).

To handle the menace of malnutrition, a protein-enriched rice variety has been developed by the Indira Gandhi Krishi Vishwavidyalay (IGKV) Chhattisgarh and researchers expect that it would serve as a boon for malnourished population, especially children, in the tribal-dominated Chhattisgarh.

Nutritional Content in the new Rice Variety

The present varieties of rice are not rich in protein content as it is mainly having carbohydrates, so IGKV developed zinc-rich rice varieties along with rich protein content. The new developed rice variety has over 10 per cent protein content, which is three per cent more than what is found in any popular variety and has 30 PPM zinc content.

How will it be effective?

The rice variety will play a crucial role in fighting protein deficiencies. Since rice is the staple food of the state and consumed on a regular basis, the research focused on enhancing its micronutrients and protein contents. For majority of the people who do not eat meat products or can't afford pulses, rice could be a good source of proteins. The new rice variety's high nutritional content will be helpful in government's efforts to eradicate malnutrition in the state.

Way Forward

Every year a new variety (rice) is identified. But the important thing is when it will arrive in the market on a large scale so that people could take its advantage. Besides, quality is more important as compared to quantity. Hence, the focus should be on improving the quality of protein rather just quantity. The way scientists have developed high protein rice, researches should also be done to improve the protein quality in other food items like pulses and wheat which are also key components of Indian meal.

C. GREEN TRAIN CORRIDORS

With the Aim of making rail tracks network as Green Corridor as part of Swachh Baharat Mission, Railways recently announced that 175-km long line in Gujarat was made waste discharge free zone.

The 141-km-long Okha-Kanalus route and the 34-km-long Porbandar-Wansjaliya sections in Gujarat have now become the green train corridors as all trains passing on these lines are now equipped with bio-toilets. About 29 trains consisting of nearly 700 coaches have been provided with bio-toilets to prevent open discharge on the track.

With provision of bio-toilets in all its coaches, discharge of human waste from trains onto the ground would completely stop which in turn would help in improving cleanliness and hygiene.

Bio Toilets

Indian Railway had developed the environment friendly 'IR-DRDO Bio-toilets', in association with Defence Research and Development Organisation (DRDO).

In the bio-toilet fitted coaches, human waste is collected in tanks below the toilets and the same is decomposed by a consortium of bacteria. Regenerative type anaerobic bacteria in liquid form is poured into the six-chamber retention tanks in the bio-toilets and the bacteria helps in disintegrating human waste into liquid and gas. The liquid would be chlorinated and discharged with no harm to the environment.

History of Green Corridors Manamadural-Rameswaram train coaches get bio-toilets

► The 114-km-long Manamadurai- Rameswaram stretch of Southern Railway became India's first 'Green corridor'

► About 150 coaches in 13 pairs of express and passenger trains, was provided with bio-toilets and there would be zero discharge of human waste on tracks in the section.

► Rameswaram railway station, which handled the trains, had already been developed as a 'Green Station' to handle the bio-toilets in the coaches.

Besides aiming for some section in North India to become discharge free corridor next year, Govt said its ultimate aim is to make the entire zone including tracks, stations, platforms, linens used in coaches to be clean.

Achievements so far

► Railways have already provided around 48,000 bio-toilets in about 14,000 passenger coaches.

► During the current financial year 14,000 bio-toilets have already been fitted in coaches and it is planned to fit an additional of 16,000 bio-toilets in coaches in the remaining part of current financial year.

Future Planning

► Railways aim to make the 78-km long Jammu-Katra section free from human waste discharge by March 2017.

► Efforts are on to equip all coaches with bio-toilets by 2019.

► Railways have taken up a mammoth task of providing human discharge free bio-toilets in all its coaches to make the entire railway track on its network a green corridor.

► Making provisions of bio-toilets at the manufacturing stage of coaches is easy but retrofitting in old ones is a challenging task. But Indian Railways has developed the technique to make the retrofitting process easier.

D. NATIONAL ACADEMIC DEPO-SITORY (NAD)

Cabinet chaired by Prime Minister approved the establishment of a National Academic Depository (NAD). The government is creating an online database NAD where all academic certificates will be available in digital format by the end of next year. In NAD all academic degrees, certificates and awards would be digitally available for verification. The NAD would be established and operationalize in three months and would be rolled out throughout the country in 2017-18.

Academic institutions would be directed to upload and authenticate all documents in digital form.

The database will be established in an electronic format by an identified registered depository, with all institutes, including school boards, the Indian Institutes of Technology, the National Institutes of Technology and polytechnics from different States having linkages to the depository.

Who will operationalize NAD?

NSDL Database Management Limited (NDML) and CDSL Ventures Limited (CVL), wholly-owned subsidiaries of the Depositories registered under the Securities Exchange Board of India (SEBI) Act, 1992, would operationalize the NAD.

Would it require a Bill?

After the nod from the Union Cabinet the measure would be implemented with this decision and it would not require the introduction of a Bill.

What are the security features in NAD?

➤ It will provide digital or a printed copy of the academic award with security features to the students or other authorised users.

➤ NAD will verify academic awards online on the same day of request initiated by any authorised user.

➤ Requests for access to academic awards, for example, from potential employers, and academic institutions would be only on the basis of consent of the student.

➤ NAD shall maintain the authenticity, integrity and confidentiality of its database. It will also train and facilitate academic institutions/boards/ eligibility assessment bodies to efficiently lodge academic awards in the database.

The database will help the administration effectively deal with forged certificates and fake degree rackets, and enable online verification and easy retrieval of particulars of academic qualifications. Students will also benefit for, they need not worry about spoilage of certificates over time and getting their certificates attested.

How will it improve the current situation?

Once NAD will be operationalize fake degrees would become a thing of the past. However, only recognised institutions would be asked to upload the degrees.

Benefits of NAD

➤ *Students & Certificate Holders*

◘ Early receipt of online certificates as compared to physical certificates.

◘ Online, 24/7 access to all certificate records and no risk of losing, mutilation etc.

◘ Easy acceptability of online verifiable certificates without requiring attested copies, original presentation.

◘ Easy facility for applying for and obtaining duplicate copy of the certificates.

◘ Easy facility to submit verifiable copy of the certificate to employers, higher educational institutes.

◘ Admissions, Jobs, Loans becomes easier.

➤ *Academic Institutes*

◘ Digital front-end for academic institutes to deliver online services for academic certificates.

◘ Reduction in the cost and efforts for certificate issuance and verification activities.

◘ IT Back-end for maintaining updated data of certificates.

◘ Reduces the menace of Fake & Forged Certificates.

◘ Reports & Analysis

➤ *Certificate Verification Users*

◘ Centralized system enabling verification of academic awards of various academic institutions at a single place.

◘ Online verification of academic awards thereby reducing the time and cost involved in verification.

◘ Quicker processing of underlying Job application, Loan application and Admission application.

◘ Fully Online, Transparent and Auditable system reduces the need for intermediation and associated risks.

E. NATIONAL ANTHEM CODE OF CONDUCT

Supreme Court issued notice to government and sought the response on a plea that government should take measures to ensure that the National Anthem is respected, including that it should be sung only in front of persons who either understand it or are instructed about its meaning. A Bench was established to seek the Centre's stand on a PIL petition filed by Shyam Narayan Chouskey seeking a set of parameters on what amounts to abuse of the Anthem.

What was the issue?

The Supreme Court's decision to consider this PIL follows shortly after a wheel chair-bound man was assaulted by a couple at a cinema hall in Panaji for not standing up during the rendition of the Anthem.

What does PIL suggest?

➤ The PIL suggested that the Anthem should not be sung at entertainment programmes. Neither should there be any interruption of the singing of the Anthem.

➤ Neither should there be any profit derived from the Anthem nor should it be printed on objectionable items.

➤ The petition sought the National Anthem to be played in cinema halls across the country before the screening of films and also asked for issuing a protocol for the playing or singing of the Anthem at functions where constitutional dignitaries are in attendance.

Background - National Anthem

The National Anthem of India is played or sung on various occasions. Instructions have been issued from time to time about the correct versions of the Anthem, the occasions on which these are to be played or sung, and about the need for paying respect to the anthem by observance of proper decorum on such occasions. The substance of these instructions has been embodied in this information sheet for general information and guidance. Also the occasions on which the full versions or the short version will be played have been indicated at the appropriate places in these instructions.

General

➤ Whenever the Anthem is sung or played, the audience shall stand to attention. However, when in the course of a newsreel or documentary the Anthem is played as a part of the film, it is not expected of the audience to stand as standing is bound to interrupt the exhibition of the film and would create disorder and confusion rather than add to the dignity of the Anthem.

➤ As in the case of the flying of the National Flag, it has been left to the good sense of the people not to indulge in indiscriminate singing or playing of the Anthem.

F. KIGALI MAKES HISTORY WITH HFC FREEZE

Countries came to an agreement in **Kigali, Rwanda** to phase out a family of potent greenhouse gases by the late 2040s and move to prevent a potential 0.5 degree Celsius rise in global temperature by the end of the century. In all, 197 countries, including India, China and the United States, agreed to a timeline to reduce the use of HFCs by roughly 85 per cent of their baselines by 2045.

Hydrofluorocarbons (HFCs) are a family of greenhouse gases that are largely used in refrigerants in home and car air-conditioners. They are currently the world's fastest growing greenhouse gases, with emissions increasing by up to 10 per cent each year. They are one of the most powerful, trapping thousands of times more heat in the Earth's atmosphere than carbon dioxide (CO_2).

Significance of Kigali Agreement

➤ It amends the 1987 Montreal Protocol.

➤ Montreal Protocol initially conceived only to plug gases that were destroying the ozone layer, but now the latest agreement includes gases responsible for global warming.

➤ This agreement along with the recently ratified Paris agreement pushes countries to cap global warming to "well below 2 degrees Celsius" by 2100.

➤ The richest countries, including the U.S. and those in the European Union, will freeze the production and consumption of HFCs by 2018, reducing them to about 15 per cent of 2012 levels by 2036.

➤ China, Brazil and all of Africa, will freeze HFC use by 2024, cutting it to 20 percent of 2021 levels by 2045.

➤ India is part of a group that will only be freezing HFC use by 2028 and reducing it to about 15 per cent of 2025 levels by 2047.

➤ Paris agreement that will come into force by 2020 doesn't legally bind countries to their promises to cut emissions but the currently amended Montreal Protocol will bind countries to their HFC reduction schedules from 2019.

➤ There are also penalties for non-compliance as well as clear directives that developed countries provide enhanced funding support estimated at billions of dollars globally.

➤ Grants for research and development of affordable alternatives to hydrofluorocarbons will be the most immediate priority.

   With the recent agreement, India gets to participate in a positive global climate action, while gaining time to allow its heating, ventilation and air-conditioning sectors to grow and refrigerant manufacturers to find a comfortable route to transition and cost of alternatives to fall. Analysts also concluded that Kigali agreement is fair to the realities of India's future economic development.

G. IUCN TO DECLARE KASHMIR'S RED STAG AS CRITICALLY ENDANGERED

   'Hangul' (Kashmiri stag), the only surviving species of the red deer family in Kashmir, appears to be on the verge of extinction. Reacting to this, the International Union for Conservation of Nature (IUCN) is going to declare the Kashmiri Red Stag as a Critically Endangered species. The IUCN initiative will help it to get more protection and enhance the conservation efforts to increase its rapidly declining population.

Kashmiri Red Stag 'Hangul'

➤ The Kashmir Stag or Hangul is a subspecies of elk native to India. Earlier it was believed that it is a subspecies of red deer. But mitochondrial DNA genetic studies have revealed that it is part of the Asian clade of elk.

➤ Hangul has red-brownish coat bringing them to the fold of red deer. The colour, however, changes with season and age.

➤ It is found in dense riverine forests in the high valleys and mountains of Kashmir Valley and northern Chamba district of Himachal Pradesh.

➤ According to the figures available with the state wildlife department, the rare animal's strength fell from 5,000 in the beginning of last century to 900 in 1980s, when militancy broke out in the border state.

➤ *Habitat - Dachigam National Park* located on foothills of Zabarwan range on the outskirts of Srinagar, J&K.

➤ Protection status: It has been listed under Schedule-I of the Wildlife (Protection) Act, 1972 and J&K Wildlife (Protection) Act, 1978. With the help of World Wildlife Fund's 'Project Hangul' started in the 70's, their population had gone to 340 by the 80's. But it was short lived.

➤ It also has been listed among the top 15 species of high conservation priority by the Central Government.

➤ The latest census of 2008 put the figure at 117-180

Reasons for decline in population

➤ *Habitat destruction:* The Dachigam Sanctuary on the city outskirts, spread over 140 sq km, which is home to Hangul, came under the sway of militants. They killed the animal for its meat. For well over a decade, the area has been out of bounds for the security forces. Besides Dachigam, the rare animal is seen in Wadwan valley, Bhaderwah, Kishtwar and Tilel regions of the state.

➤ *Poaching:* The male deer has impressive antlers and long hair on neck. Hides and antlers of Hangul are considered of high value in international market.

➤ *Over-grazing* by domestic livestock

➤ *Environmental issues* like depletion of ozone layer, global warming and climate change are also responsible for the present situation.

Criteria for Critically endangered:

The IUCN is a leading non-governmental authority on the environment and sustainable development. It is also involved in data gathering and analysis, research, field projects, advocacy, lobbying and education.

➤ Critically endangered is the highest risk category assigned by the IUCN (International Union for Conservation of Nature) Red List to wild species. There are five quantitative criteria to determine whether a taxon is threatened. A taxon is critically endangered when the best availabile evidence indicates that it meets any of the following criteria:

◾ Populations have declined or will decrease, by greater than 80% over the last 10 years or three generations.

◘ Have a restricted geographical range.

◘ Small population size of less than 250 individuals and continuing decline at 25% in 3 years or one generation.

◘ Very small or restricted population of fewer than 50 mature individuals.

◘ High probability of extinction in the wild.

Other vulnerable species

Adding to the possible extinction list are Markhur, Himalayan Bear and the Musk Deer. Melting of glaciers, depletion of forest covers and water bodies have made their survival difficult.

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