

Initiatives To Promote Skill Development And Entrepreneurship

- On July 15, 2015, the Government launched Skill India as a movement to take India on the fast track of economic growth and progress.
- As the nodal ministry charged with fulfilling this grand vision, the **Ministry of Skill Development and Entrepreneurship (MSDE)** has been responsible for all skill development effort.
- It focuses on building the vocational and technical training framework to skill up-gradation, building new skills not only for existing jobs but also for new job roles that have arisen with Industry 4.0.
- For this, the ministry laid special emphasis in 2019 on convergence, increasing scale, meeting aspiration of youth and improving the quality of skilling.

Skill India:

- The aim of this scheme is to train India's youth in market-relevant skills empowering them for the New India and the global market requirements.

Need For Skill Development: Statistical look

- According to a 2015-16 report released by MSDE, **less than 5% of India's workforce is formally skilled**. In South Korea it is 96%, Japan 80%, Germany 75%, UK 68% and the US 52%.
- Industrial giants Germany and Japan, where **working age population** is a fraction of that of India's, have three million and 10 million apprentices respectively. **India has 0.4 million** which amounts to less than 0.1% of the employed workforce.
- India is soon expected to rank among the world's top three growing economies and the top three manufacturing destinations.

Various Initiatives:

- **National Skill Development Mission** formulated in 2014 to provide support to the skill development efforts in the country. As a result, more than one crore youth is being imparted with skills training every year under various programmes of the central government.
- The newly introduced **Skill India Portal** has converged skilling data from various Central Ministries and other stakeholders. This has enabled data driven decision making and **removed information asymmetry** in the skilling ecosystem.
- Much needed reforms have been introduced to **apprenticeship training**. To recognize and celebrate the contributions of the trainers, the **first-ever Kaushalacharya Awards** was organized to facilitate trainers. Apprenticeship based approach has huge scope as it is estimated that Indian industry can absorb 10 million apprentices.
- **National Apprenticeship Promotion Scheme (NAPS)** was launched in August 2016. It acts as a guide of basic training and on-the-job practical experience at workplace and various industries.
- The main objective of NAPS is to promote apprenticeship training and to increase the engagement of apprentices. This has been one of the most sustainable models of skill development.
- In November 2016, MSDE introduced **STRIVE, Skills Strengthening for Industrial Value Enhancement**, a World Bank funded project aimed at creating awareness through industry clusters and geographical chambers that would address the challenge of involvement of MSME.

- The Skill India Mission received a huge boost from its many orientation programmes, including the **Recognition of Prior Learning (RPL)**, which has successfully certified lakhs of candidates in the unorganized sector.
- The objective of this **Skill Certification Scheme** is to bring about a shift from the unorganized sector to an organized economy by formally recognizing the existing skills through a process of assessment and certification programme.
- **National Skill Training Institute Jammu** has been made operational and trainers are further being trained to impart skill training under National Skills Qualification Framework.
- **Market oriented reforms and initiatives** like Make in India, Digital India, Mudra Yojana, Atal Innovation Mission, 59-minute loan, Stand Up India are encouraging entrepreneurship among Indians.
- MSDE also scaled up the **ITIs Dual System Training (DST) scheme** to at least 1000 ITIs. The DST is a model of training **inspired by the German Method** and provides industry exposure through industry led trainings to students of various ITIs.
- In a bid to keep up with the times, MSDE launched new age courses in 12 NSTIs. These include Internet of Things – Smart Healthcare; Internet of Things – Smart Cities; 3D Printing, drone pilots; solar technicians; geoinformatics and many others.

International Cooperation:

- Bilateral meeting have been organized at regular intervals between officials of MSDE and their counterparts in countries like Singapore, the UAE, Japan, Canada and Australia to boost capacity for skilled workforce in the country.
- Both India and Japan are working together to implement **Japan's Technical Intern Training Programme (TITP)**. It is an on-the-job training scheme that provides for internship opportunities over 3-5 years for foreign nationals in Japan, with NSDC as the nodal implementing agency.
- India is also working closely with Singapore Institute of Technical Education to create state-of-art **India Institute of Skills (IIS) for providing training in specialized skill sets**.
- **The first IIS is expected to be launched in Kanpur**, followed by Mumbai.
- The Government has also partnered with Emirated Driving Institute (EDI) and Youth Chamber of Commerce (YCC) in April 2019 to set up International Driver Training Institutes (DTIs) in India to promote migration of skilled drivers from India.

Importance of Entrepreneurship:

- About 54% of Indian population is under the age of 35 and close to 15 million enter the workforce every year. The only way enough jobs can be created consistently is through entrepreneurship and innovation.
- Entrepreneurs are central to the growth and development of a society.

Steps Taken to Promote Entrepreneurship:

- Government instituted the **National Entrepreneurship Awards** in 2016 to honour young entrepreneurs. The success of this remarkable effort can be seen in the 75% rise in the applications completed for National Entrepreneurship Awards 2019.

- Other steps include – 20-hour mandatory module on entrepreneurship in short-term skill training programme, converting **Pradhan Mantri Kaushal Kendras** (PMKKs) into Entrepreneurship Hubs by providing trainees mentoring and handholding support
- MSDE and **National Skill Development Corporation** (NSDC) also launched India’s first National Skills Competition – **IndiaSkills, a biennial competition**. This year, IndiaSkills 2020 will provide a platform for skilled and talented youth to showcase their abilities at regional and national level competitions in over 50 skills.
- Winners of IndiaSkills will then get a chance to represent the country at the **WorldSkills International Competition to be held in China in 2021**.
- **WorldSkills International Kazan** was held in 2019 and the 22 winners of IndiaSkills 2018 and their experts had represented the country. India was **ranked 13th among 63 countries**, making it the best finish for the country in the coveted skill championship.

Conclusion:

The roadmap to making India the ‘Skill Capital of the World’ is fast becoming fruition reality. Government has pledged to provide constant support to the youth of our nation who are joining the movement for building a “Kushal Bharat, Kaushal Bharat”.

Skill Development in India: Thoughts and Ideas

- Skill Development leads to improved productivity, employment, self-employment, economic growth and consequently poverty reduction.
- Skill development, in a country like India with its large young population, which is estimated to be 34.33% of total population in 2020, assumes greater importance to effectively reap the demographic dividend.

Skilling To Be Made Aspirational

- Today, vocational courses have **low acceptability** due to several reasons including lack of well-defined career progression and low awareness.
- It is perceived as a preferred option for those who have not succeeded in the formal education system or have opted out of it.

Steps Required:

- **Information, Education and Communication** (IEC) efforts would go a long way in making skilling and vocational education aspirational.
- To strengthen the Skilling ecosystem, we also need to understand youth preferences and gauge their aptitude and interest. **Mapping aspirations** of the youth is important for sustainable skill development and making the skilling ecosystem more demand driven.
- **Regular skill gap studies and assessment** of industry demand would go a long way in matching demand with supply and shaping policies.

Other Steps Required to Improve the Skill Ecosystem:

- **Reskilling and Upskilling** on regular basis

- **Online Skilling to be encouraged** as it would increase the span of both horizontal as well as vertical reach of youth to skill courses.
- **Private Sector Participation** as enhanced industry linkages could lead to more employment opportunities for skilled candidates.
- **Linking Skill to entrepreneurship** as skilling should create not only job seekers but also job creators. Necessary credit support along with market linkages also needs to be provided.
- **Strengthen and popularize apprenticeships** in India as it is one of the best ways of on-the-job skilling and increasing the employability. It is a win-win situation as the industry also gets a ready pool of trained, industry ready workforce. Besides increasing apprenticeships, this would also lead to increased female labour force participation.
- **Integrate Portal of Job Seekers and Job Givers** to augment matchmaking and placement of trained youths.
- **Skilling for Future Jobs** – Many emerging technologies such as AI, Machine Learning, Robotics, 3D Printing, Blockchain are shaping innovations in business models and processes. Thus there is an imperative need to introduce new skill courses.
- **Skilling for Global Markets** – Skilling for global markets can be facilitated by setting up **specialized market research cells** which would conduct demand-supply gap analysis in major employing sectors in different economies.
- The use of our **diplomatic missions abroad should also be strengthened** for necessary market information and connecting with the governments and companies.
- Encouraging **government to government tie ups** could ensure better protection of workers' rights.

Conclusion:

- For India to become the skill capital of the world, skilling of rural India assumes great significance as it would also enhance employability, employment and entrepreneurial activity in rural areas, where majority of the population still resides.

Skill Development: A Way Forward

- The **National Policy for Skill Development and Entrepreneurship 2015** mentions that more than 54% of India's population is below 25 years of age and 62% of India's population is aged between 15 and 59 years. This demographic dividend is expected to last for the next 25 years.
- The policy also says that the average age of the population in India is 29 years as against 40 years in USA, 46 years in Europe and 47 yrs in Japan.
- Labour force in the industrialized world is expected to decline by 4%, while in India it will increase by 32%.
- 49% of total Indian workforce are employed in agriculture, however, their contribution is only 15% of the GVA. In China only 21% of workforce is employed in agriculture.
- There is a need to **increase the pace of generating good quality jobs** to cater to the growing workforce, their rising aspirations and to absorb out-migration of labour from agriculture.

Challenges Faced by Indian Job Market:

- Globalisation, growing domestic market, automation and adoption of new technologies have significantly impacted skills in demands.

- As per India Skills Report 2019, the employability of skilled manpower has remained a big challenge. Lack of focus on industry linkages and core employable skills were the main reasons for the downturn in employability.

Indicators of Job Market

1. Labour Force Participation Rate (LFPR)

- LFPR is one of the key indicators, which explains the condition of labour market and the extent of population that is economically active. It is defined as the percentage of persons in the labour force among the persons in the population.
- The LFPR for persons of age 15-29 years was 38.2% in 2017-18.

2. Unemployment Rate

- It is defined as the percentage of unemployed person in the labour force and it was 6.1% in 2017-18. Despite increasing pace of skill development, unemployment rate among youth has not declined.
- Supply of appropriately skilled manpower is a necessary condition for reducing unemployment, meeting aspirations of youth, increasing productivity and remuneration. On Skill Development front, the mismatch between demand and supply of skilled labour is one of the causes for increasing Unemployment Rates among youth.

Way Forward:

- As per NITI Ayog's report, **Strategy For New India @75**, skill development plans and strategies should be developed by geography and sector by mapping the availability of infrastructure and on the basis of assessing skill requirements.
- **Panchayat should be a geographical entity to mobilise rural youths** for skill development and training programmes. Panchayat office should maintain a data base on skill requirements after counselling rural youths.
- It should be made compulsory for industry stakeholders to publish their vacancy details through National Career Centres.
- Training capacities of trainers in training institutes need to be upgraded to ensure the availability of qualified trainers. Trainers' training centres should be established in each of the districts.
- **Centralised MIS should** be there to provide information on skill development on all types of short-term training programmes.
- **Overseas Employment Promotion Agency** should be set up at the national level under the MEA.
- Internship in industries is quite important as both the employer and trainee understand each other's requirements.

Skill Development: Artificial Intelligence and Machine Learning

- The technological innovation has experienced exponential growth in last two decades. These innovations have not only impacted the economic growth potentials but also resulted in rapid transformation in labour market globally.
- This is important since the new skills like Artificial Intelligence (AI) and machine learning can potentially shape new jobs, and change the interaction of human and machine.
- At the center of the crisis lies **skills instability**. Further, in the absence of policy focus this could result in **large skill gaps and inequality**.

Initiatives:

- There has been a significant drive towards building a proper eco-system of skill development and creating synergies with key stakeholders through the **National Policy on Skills Development**.
- In the year 2015, government of India launched the National Skills Mission, making it target oriented and time bound.
- The launch of **Standard Training Assessment and Reward (STAR)** scheme paved way for more skills training and also opened the way for foreign collaboration in program design and certification by foreign companies.
- The **Pradhan Mantri Kaushal Vikash Yojana (2015) (PMKVY)** was designed on similar lines to the STAR scheme.
- The Government, in Budget 2019-20, indicated the ambition “**To prepare our Youth to also take up jobs overseas**”, which would entail increased focus on skill-sets needed abroad including language training.
- All the major skills development programmes in India like PMKVY, **SHREYAS (Scheme for Higher Education Youth in Apprenticeship and Skills)**, programmes in ITIs, for the last few years have been focusing upon creating opportunities for skilling the workforce for future driven jobs and industry-oriented courses aligned to industry.

Challenges:

- There is an urgent need in India to make **fast move towards technology adoption** in the wake of industry 4.0.
- India’s growth story in recent past has been dictated by **capital deepening and not necessarily by large base of labour focus**.
- A large proportion of labour force is **employed in the informal sector**, implying they are less educated with limited exposure to skill development.
- The **current size of India’s formally skilled workforce is very small** (approximately 2 per cent). In contrast, countries like South Korea and Japan have 96 per cent and 80 per cent skilled workforce respectively.
- The country presently faces a **dual challenge of severe paucity of highly – trained quality labour and non-employability of large sections of the educated workforce** that possess little or no job skills.
- The **demand and supply side has been dealt in silos**, whereas, it needs to be understood that the skills development issue in India is pertinent both at the demand and supply level.
- Only about 21 per cent of males and 12 per cent of females in rural areas have education attainment up to secondary level. This present **vicious cycle of joblessness** mostly because the demand for skilled worker has increased manifold in the recent time.

Way Forward

- There is a positive feedback loop between new age technologies and skilling or up-skilling rural youths.
- Apart from focus on short terms skill training, up – gradation of ITIs as centers for new age skills training for candidates can be an important way forward.

Creating a Training Market: Major obstacles

- In most of the States there are outdated system and lack of sufficient facilities and equipment or qualified instructors.
- Skills mismatch and link between training and industry needs
- Upgrading outdated training systems and under-qualified instructors.
- Current Availability of Trainers in Vocational Sector - The National Policy on Skill Development and Entrepreneurship, specifically in relation to trainers in the skill sector, states that “the availability of good quality trainers is a major area of concern.”
- **Apprenticeship training lags behind** - The current system does not incentivize the youth and workers to opt for skills development opportunities.

Conclusion:

- There is evidence to suggest that the rate of seat utilization under apprenticeship training scheme has been declining. Therefore, systems approach within skill ecosystem is required to promote innovativeness and to recognize the value of on-the-job training, by making apprenticeships in actual work environments an integral part of all skill development efforts.

Skill Development and Entrepreneurship Among Youth and Women

- In a country like India where approximately 12.8 million labour force enters the job market annually, it is not possible for the existing governmental and non governmental institution to generate enough jobs to accommodate all job seekers. Hence, we need to move away from a paradigm of “**job seekers**” to “**job creators**”.
- Entrepreneurship is directed towards innovative problem-solving initiatives which can be turned into commercially viable ventures hence entrepreneurs add value to the society by simplifying the lives of people and creating new jobs in the process.
- Literature on ancient Indian history has highlighted that **occupation-based corporate organization called Shrenis (Guilds)** used to impart skills to the novice artisans by a system of apprenticeship.
- This shows that skill development has always held an important place in Indian culture.

Skill Development for Youth

- Our country presently faces a **dual challenge of paucity of highly trained workforce**, as well as **non-employability of large section** of the conventionally educated youth, who possess little or no job skills.
- A field where the initiative has lacked in India is in **developing aspirational value for skill development programmes**.
- The narrative around vocational course needs to be rebuilt as stepping stones for students to move ahead in career by adding new skill sets. Skill development and entrepreneurship culture needs to be built from the bottom to the top.
- School should have mandatory skill and entrepreneurship classes. Colleges should have compulsory credit courses for skill and entrepreneurship development courses.

- In 2012, MHRD launched Centrally Sponsored Scheme of **Vocationalisation of Secondary and Higher Secondary Education (CSS-VSHSE)** targeting both the school drop-outs and those pursuing higher education post school.
- Skill development initiatives can be used for reformation and rehabilitation of youth. NSDC in collaboration with Delhi Police has undertaken **project YUVA (Yuva Udyamita Vikas Abhiyan)**, under PMKVY. Delhi police has identified around 3,000 deprived youth in the capital region for imparting skill training in various trades.
- NSDE, through its training partners, is operating skill development training centres in the police stations across the capital city with the aim to train youth between the age group of 16 to 25 years.
- The outreach and quality of skill development in rural areas needs to be improved so as to enable rural workers to acquire and upgrade technologies, improve linkages to value chains, increase agricultural production, expand access to market and engage in off-farm activities which can generate supplemental income.
- Institutes for entrepreneurship training such as **Rural Development & Self Employment Training Institutes (RUDSETI)** need to be promoted further.
- The convergence with national employment programmes, such as National Rural Employment Guaranteed Scheme (NREGS), provides an opportunity for imparting skills training in rural areas.

Skill Development for Women:

- Women constitute almost half of the demographic dividend. National sample survey (68th Round) results indicate that the **worker population ratio for females in rural** sector was 24.8 in 2011-12 and 54.3 for males. In Urban sector, the ratio is 14.7 for females and 54.6 males.
- Female participation in the labour force has **remained lower than male participation** as women account for most of the unpaid work, and when women are employed in paid work, they are overrepresented in the informal sector and among the poor. They also face significant wage differentials vis-à-vis their male counterparts.
- Poor ratio of participation of women in labour force **gets repeated in poor ratio of participation of women in skill development courses**. This skewed ratio shows that skill development initiatives need to have a targeted focus towards women to increase the percentage of women in skilled workforce.
- Mainstreaming gender roles by skilling women in non-traditional roles and increasing gender sensitivity in the workplace will have a catalytic effect on productivity and be a smart economic decision.

Challenges Faced by Women

- Women face a multitude of barriers in accessing skills and productive employment.
- They are discouraged for getting into such vocations which are traditionally considered to be 'tough' such as automobiles and construction works.
- They are few areas where women are traditionally preferred such as in hospitality and tourism industry.
- Women are increasingly becoming the main workers in rural households-as their husbands often migrate-but often equipped with only traditional and outdated skills and knowledge.

Ways to Promote Women

- Keeping this in mind **women-centric skill development courses** need to be designed to provide gainful employment to women in sectors where demand for skilled female workers is high.
- Proactive measures should be taken such as providing hostels, scholarships, transport, training materials and loans to women pursuing skill development course.
- The rehabilitation initiatives of **Ujjawala scheme can be integrated with the skill development initiatives of MSDE** so that the women rescued from difficult conditions can be re-integrated into the society in respectable skill-based remunerative professions.
- Similarly, other schemes of MWCD such as **Support to Training and Employment Programme for Women (STEP), Swavalamban, Kishori Shakti Yojana**, etc., which focus on skilling of women should be synergistically integrated with programmes of MSDE.
- Training modules should incorporate specific needs of target groups, for example, literacy, the level of education and the local language.
- The delivery of training should be flexible in terms of hours and duration to encourage participation, particularly among women.

Promoting Entrepreneurship in India:

- The number of local entrepreneurs emerging every year in India is very low. The **Global Innovation Index 2019** ranks India 52 out of 129 countries in innovation performance.
- **The ideal entrepreneurial environment has five pillars:** access to funding, entrepreneurial culture, supportive regulatory and tax regimes, educational systems that support entrepreneurial mindsets, and a coordinated approach that links the public, private and voluntary sectors.
- We need to inculcate a culture of entrepreneurship since the formative years of students.
- Recent report of Entrepreneurship Classes being conducted in some school of Delhi are encouraging.
- In the last decade, India witnessed young entrepreneurs making breakthrough across different sectors through blue chip start-ups.
- The stories of the co-founders of such ventures should be a part of school curriculum to motivate students from a young age.
- Special focus should be given on **empowering women and students coming from marginalized sections** to provide them with enough confidence so that they venture into the risky domain of entrepreneurship.
- Entrepreneurship need to penetrate all layers of society so that problems concerning all sections of the society can be solved through innovative solutions.
- There is need for **institutions like DICCI (Dalit Indian Chambers of Commerce)** to hand hold entrepreneurs coming from weaker socio-economic background by providing them access to networking opportunities and business funding channels.
- Government of India has announced the **National Policy for Skill Development and Entrepreneurship which focuses on towards promoting entrepreneurship.**
- One of the prime factors which hinder entrepreneurship is the multitude of compliances to be made with respect to Government regulations and laws. This problem can be solved by **providing some relaxation in compliance for newly established start-ups.**
- Tax deducting given under section 80 IAC of the Income Tax Act, to the newly established start-ups is a case in point.

Synthesis of Skill Development and Entrepreneurship:

- It is important to see skill development and entrepreneurship as complementary to each other.
- The lack of skilled manpower restricts the growth of entrepreneurial ventures. At the same time skill development initiatives need augmentation from entrepreneurs.
- An **all-inclusive approach to strengthen** the entrepreneurship development scenario in the country which is competent, quality conscious, market savvy, innovative and has globally competitive entrepreneurs needs to be carefully mentored and encouraged.

Skill Development: Imperative for Achieving Growth Targets

- Skill development is the process of (1) identifying skill gaps, and (2) developing & honing those skills.
- Skill training is targeted training provided to candidates to help them acquire knowledge and abilities necessary for them to achieve gainful employment.
- The nodal Ministry responsible for skill training and development is the Ministry of Skill Development and Entrepreneurship (MSDE).
- The key elements of this Ministry are National Skill Development Agency (NSDA), National Skill Development Corporation (NSDC), National Skill Development Fund (NSDF) and 33 sector skill councils (SSCs) as well as 187 training partners registered with NSDC.

The Ministry implements the following schemes:

- **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)**
- **Apprenticeship Training Scheme (ATS)**
- **Craftsmen Training Scheme:** Training courses under craftsmen training scheme are being offered through a network of industrial training institute. The Scheme is implemented through Directorate General of Training.
- **Skill Development Initiatives (SDIs):** The SDIs aim to provide vocational training (course based on Modular Employable Skills) to develop skilled manpower for the industry since May 2007. A National Council of Vocational Training certification is granted under the scheme. The Scheme is implemented through Directorate General of Training.
- **National Skill Development Corporation (NSDC):** This was setup as Public Private Partnership Company with the primary mandate of catalyzing the skill landscape in India.
- **National Policy For Skill Development And Entrepreneurship:** The Policy acknowledges the need for an effective roadmap for promotion of entrepreneurship as the key to a successful skills strategy.
- The policy seeks to bridge existing skill gaps, promote industry engagement, operationalize a quality assurance framework, leverage technology and promote greater opportunities for apprenticeship training.
- Skill development and entrepreneurship programmes for women are a specific focus of the policy. In the entrepreneurship domain, the policy seeks to educate and equipotential entrepreneurs.

Conclusion:

- The Skill India Mission has played a key role in re-skilling and up-skilling the workforce to facilitate growth in skill development. The Mission has ensured that the skills are learnt through formal means

and recognized and certified: and seen that the workforce is now better equipped to leverage the existing job opportunities in the country.

Women Entrepreneurs in India: Opportunities and Challenges

- Developing and developed nations have realized that developing women entrepreneurship is indispensable to flourish as economically dominant nations. Therefore, creation of platforms and networks for entrepreneurial culture have become prominent issues globally.
- Women entrepreneurship can make a particularly **strong contribution to the economic well being of the family & communities, poverty reduction, and women empowerment, thus contributing to the Millennium Development Goals (MDG).**

Statistics:

- According to 6th economic census, 13.76 per cent of MSME's are women owned i.e. approximately 8.05 million out of 58.5 million businesses.
- In India, there are also urban/rural differences in rates of women's entrepreneurship, with more women's enterprises based in rural areas (22.24 per cent of all rural enterprises), compared to urban areas (18.42 per cent of all urban enterprises) according to Ministry of MSME Annual Report.
- There is a variation in the distribution of women-owned enterprises across India at state level, **suggesting diversity in the enabling environment for women entrepreneurship.** The largest share in the number of establishments under women entrepreneurs are clustered in the southern states of India.
- India needs more women entrepreneurs because of the following reasons:
 - (1) **Economic growth:** Enabling women benefits future generations because women tend to spend more time on their children's education and health, which in turn boosts productivity.
 - (2) **Narrowing gender gap:** Narrowing the gender gap in employment will increase global income.
 - (3) **Company culture and safety at workplace:** Studies show that a women-led company tend to have better company culture, high values and transparency.
- Sector Specific Business Opportunities for Women Entrepreneurs.
 - The handloom, handicraft and fashion are a vast industry and is also growing at a great pace with different innovative creations.
 - The Education sector has also seen a host of reforms in the recent years that could possibly transform the country into a knowledge haven.
 - Another tremendously growing industry is the beauty and wellness industry in India that is booming, with a tremendous potential for growth in the coming years.
 - In india the logistics industry is also evolving rapidly.
 - Another vibrant activity and a multi billion industry in India is the Tourism Industry. The Indian Tourism & Hospitality Industry is 34th (among 140 economies across the world in 2019) as per ranking in Travel & Tourism Competitive Index (TTCI) released by the world Economic Forum (WEF).

Challenges Faced By Women Entrepreneurs:

- While there are a large number of schemes for promoting women entrepreneurship, the schemes have to be sensitive to the factors that play an important role in shaping the needs of women entrepreneurs.

- The support rendered with policies and schemes spread across different departments and domains, often make it difficult for women to access them.
- In spite of various initiatives by the government, women entrepreneurs have **limited access to bank loans**; most women entrepreneurs first and foremost rely on self-finance.
- In the context where majority of women **lack networks, market intelligence** and the knowhow to start and expand their business, market access can be a key ingredient in propelling growth.

Conclusion:

- Empowering women is a pre-requisite for creating a good nation. When Women are empowered, a society with stability is assured. Empowerment of women is essential as their thoughts and value systems leads to the development of good family, good society and ultimately a good nation.

Skilling The Youth Through Science & Technology

- India is expected to have 34.33% share of youth in total population by 2020. There is need of skilled youth in the field of S&T in the country so that their proficiency in various tasks can be fully utilized.

Science, Technology and Innovation (STI) Policy 2013 and Skill Development

- As per the STI policy, “Science, Technology and Innovation” should focus on faster, sustainable and inclusive development of people. **The policy seeks to focus on both STI for people and people for STI.**
- It seeks the right sizing of the gross expenditure on R&D by encouraging and incentivizing pvt. Sector participation. A **Strong and viable Science, Research and Innovation System for High Technology led path for India (SRISHTI)** are the goal for STI policy.
- This can only be achieved through Skill Development in S&T. The key features of STI policy also include, “enhancing skills for applications of science among the young from all social sectors”.

Various Skill Development Programs of DST

1. **Skill Development Training through Science & Technology (STST) –**
 - It aims at development of skills through training intervention by developing special curricula and creation of models for offbeat and innovative skill areas.
 - The National Science and Technology Entrepreneurship Development Board (NSTEDB) has initiated programmes of entrepreneurship development and self-employment generation using S&T methods.
 - The main objectives of STST are to demonstrate that skills can be developed through the application of S&T in order to harness the resources of S&T infrastructure of the country.
2. **National Implementing and Monitoring Agency for Training (NIMAT) NSTEDB and DST**
 - With the objectives to promote and strengthen Science and Technology entrepreneurship, the NSTEDB sponsors various entrepreneurship related activities.
 - These programmes under the project namely “DST-NIMAT” are mainly conducted by various institutions involved in the field of S&T entrepreneurship. The project is implemented by Entrepreneurship Development Institute of India, Ahmedabad on pan-India basis.

3. Student Start-Up NIDHI Award

- **NIDHI (National Initiative of Development and Harnessing Innovation)** award aims to take forward student innovations in New Generation Innovation and Entrepreneurship Development Centre (NewGen IEDC) to commercialization stage and accelerate the journey of idea to prototype by providing initial funding assistance.
- NSTEDB has taken this initiative of helping start-ups with initial funding. NewGen IEDC aims to inculcate the spirit of innovation and entrepreneurship amongst the young S&T students and encourage and support start-up creation through guidance and mentorship.

4. NIDHI-STEP/TBIS and NIDHI PRAYAS

- NIDHI – Science & Technology Entrepreneurs Park and Technology Business Incubators (STEP/TBIS) are institutional linked facilities promoted by the DST to nurture innovative and technologically-led new ventures during the initial and critical period.
- The primary aim of the STEPs and TBIs is to tap innovations and technologies for venture creation by utilizing expertise and infrastructure already available with the host institution.
- **Promoting and Accelerating Young and ASpiring technology entrepreneurs (PRAYAS)** is one of the 9 programs, specifically made to support young innovators turn their ideas into proof-of-concepts.
- Hence NIDHI-PRAYAS can be considered a pre-incubation initiative and a source of pipeline for incubators.

5. Knowledge Involvement in Research Advancement through Nurturing (KIRAN)

- This is an exclusive scheme for women with the mandate to bring gender parity in S&T through gender mainstreaming. The programme is aimed at providing opportunities to women scientists who had a break in their career primarily due to family responsibilities.
- It is aimed to provide opportunities to women scientists and technologists for pursuing research in basic or applied sciences.

6. Augmenting Writing Skills for Articulating Research – AWSAR

- It is an initiative that aims to disseminate Indian research stories among the masses in an easy to understand and interesting format. It has been initiated by the National Council of Science and Technology Communication (NCSTC), to encourage, empower and endow popular science writing among young PhD scholars and post-doctoral fellows during the course of their higher studies and research pursuit.

7. Green Skill Development Programme (GSDP)

- MoEF&CC has taken up an initiative for skill development in the environment and forest sector, to enable India's youth to get gainful employment and self-employment, called Green Skill Development Programme.
- The programme endeavours to develop green skilled workers having technical knowledge and commitment to sustainable development.

8. Technology based Entrepreneurship Development Programme (TEDP)

- It primarily focuses on training & development need of S&T entrepreneurs in a specific technology area (eg. Leather, food processing etc.). The participants are provided with hands-on training in indigenous technologies developed by R&D institutions that are available for commercial exploitation.

Conclusion:

- Today, with the country-wide operations of Skill India programmes based on S&T, young India is being given new wings of development and the skilled youths are preparing for long goals.

- The **UN Population Fund** defines demographic dividend as the 'economic growth potential that can result from shifts in a population's age structure, mainly where the share of working age population is larger than the non-working age (dependent) population.'
- In order to realise the economic potential, it is imperative to ensure that India's youth is equipped with employable skills to meet the growing demands of the labour market.
- In a world with burgeoning emphasis on experiential learning, it is time vocational education takes centre stage in public policy. This is even more critical in the current context, given that the Economic Survey 2018-19, estimated that **93% of total workforce is engaged in informal sectors of the economy**.
- Vocational education refers to education programmes that are designed to prepare individuals for specific occupations. In India, formal vocational education is offered in schools at the secondary (class 9 to 10) and higher levels (class 11 to 12), while vocational training is provided through higher education institutes.

Benefits of Vocational Training:

- Higher returns including greater average daily wage rates
- Increased work participation and lower unemployment rates among vocationally educated labour in comparison to untrained labour.
- **Vocational education and training** was one of the **core thrust areas identified in the XIth Five Year Plan**.

Challenges:

- Students tend to drop out of school to enter the labour market or as they perceive low returns from education.
- There is almost **stagnant enrollment** in vocational streams across the nation. Low enrollment in vocational education may be correlated with the low coverage of vocational education in schools.
- As per the Unified District Information System for Education (UDISE) 2016-17, only 4,084 schools offered National Skills Quality Framework (NSQF)-compliant vocational education in the country.
- The vocational education sector faces issues such as **low industry linkages, inadequate numbers of trained teachers etc.**

Current Policy Framework and Implementation of Vocational Education in Schools

- The **Dept. of School Education and Literacy** at the MHRD is in-charge of developing and formulating national policies on vocational education at the school level.
- Under the ambit of Samagra Shiksha Scheme, the govt. is implementing the centrally sponsored scheme of Vocationalisation of School education to integrate vocational education with general academic education.
- The **Pandit Sunderlal Sharma Central Institute of Vocational Education**, a constituent unit of the NCERT is the nodal agency for curriculum and course development. All content is generated for NSQF-compliant job roles in consultation with the Sector Skills Councils, the representative bodies of industry.

- MHRD is currently working in collaboration with the MSDE on providing apprenticeship training to students graduating with vocational subjects.
- At the State level, the State Boards conduct external competency-based assessments of skills of students in collaboration with SSCs who are also responsible for practical assessment.
- The CBSE also offers vocational education at both the secondary and higher secondary stages. The National Institute of Open Schooling, since 2016, also offers over 100 vocational courses via Open and Distance Learning mode.
- At the tertiary levels of higher education, the AICTE has recently introduced Degree/Diploma programmes in Vocational Education under the NSQF in over a dozen specializations for AICTE approved institutions.
- Under this scheme, the theoretical course component is taught by the institute while the practical skills component is administered by an industry partner approved by a government agency.
- UGC is implementing three schemes, namely, Community Colleges, B.Voc Degree Programmes, and Deen Dayal Upadhyay Kaushal Kendras in Universities and Colleges to impart skill development based vocational courses and research programmes.

The Road Ahead:

- MHRD is currently in the process of creating a **National Vocational Education Qualifications Framework (NVEQF)**. It is set to lay the roadmap for vertical and horizontal mobility with multiple entry and exit options for students.
- The draft **National Education Policy, 2019** aims to integrate vocational education in all schools and provide access to vocational education to at least 50% of the learners by 2025. It envisions that all students must receive vocational education in at least one vocation during their secondary and higher secondary education.
- Content and curriculum must constantly be revamped to ensure India's youth are adequately skilled to meet the needs of the Fourth Industrial Revolution.
- Schools should ensure that all children successfully complete Class XII and must also impart supplementary courses in entrepreneurship, soft skills etc.

World Bank Report

- The World Development report 2019 titled '**Changing Nature of Work**' shows the need to leverage technology to facilitate improved access to vocational education.
- **Chile, for example, is leveraging technology** to address information asymmetry by creating online platforms where students can access information on employability of individuals.

Conclusion:

- Policy and interventions in India therefore, needs to take cognizance of these aspects for future vocational reforms. Revamping the spectrum of vocational education will be the bedrock for India to realise the Sustainable Development Goal to promote lifelong learning opportunities for all.

Skill Development and Healthcare

- Skill development in health service delivery, contributes to improved health outcomes, women empowerment, job creation, economic development and growth.

Need For Skill Development in Healthcare: Statistics

- In a report released by NSDC in the year 2015, the health workforce requirements for India was estimated to be around 7.4 million by the year 2022.
- More recently, the National Health Profile 2018 of India reported availability of 5.8 million health workers as on March 31, 2017.
- This meant a combined density of doctors, nurses, midwives in **India is around 30/10,000** people, **which is far below the threshold of 44/10,000 required to achieve Sustainable Development Goal-3(SDG3)**, as determined in the 2016 WHO Global strategy for Human Resource for Health: workforce 2030.
- In early 2017, the Government of India committed to Universal Health coverage (UHC) through the new National Health Policy (NHP).
- The NHP 2017 has recognized the challenges of shortage and inequitable distribution of health workforce, and proposed increasing the availability and augmentation of skilled health human resource as one of the key strategies to advance UHC in the country.
- NITI Aayog's 2018-2022 Strategic Plan for New India@75 has aimed at generation of 1.5 million jobs in the public health sector by 2022-23.

Human Resources and Skill Development are interlinked

- Skill Development in various forms (skilling, re-skilling and up-skilling) is key for any sector, more so for service predominant sectors such as health.
- The Healthcare Sector Skill Council (HSSC), as not-for-profit, non-statutory certifying organization under the ministry of Skill development and Entrepreneurship has been set up.
- India has intensified to increase access to health services through the Ayushman Bharat Programmes with two components: Health and Wellness Centres (HWCs) and Pradhan Mantri Jan Arogya yojana (PM-JAY).
- In the roll out of HWCs, new Mid-level Health Providers (MLHP) & community Health Officers (CHOs) would be required.

Discussion

- Often, the discourse on **shortage and skilling of health workforce is restricted to doctors, nurses and a few other categories of health staff**. There is a strong case for investment in other categories of health workers such as allied health professionals, lab technicians, X-ray technicians, phlebotomists, etc.
- There is another aspect of public health cadre in India. As of now, **only a few Indian states have cadre of public health professionals** which are often recommended including in the NHP 2017 and the Strategy for New India@75.
- There is a **need for re-designing the training programmes** to match the skills required to implement public health activities as well as create job opportunities for public health professionals through cadre formation.
- Skill Development in health sector has a few other benefits such as enabling access to healthcare for marginalised sections of the community, which is central to the process, it also improves the formal employment particularly for women and youth.

Economics behind Skill Development in Healthcare

- It has been estimated that for **every dollar (or Rupee) invested on health, it gives 9 to 10 times economic return**. India's public health expenditure was 1.2 per cent of the GDP in 2016-17.
- Therefore, the commitment of increasing government investment for health to 2.5 per cent of the GDP by the year 2025(NHP 2017), can contribute to economic growth.
- The **United Nations High-Level Commission on Health Employment and Economic Growth (ComHEEG)** highlighted that **investment in the health workforce can have a significant paybacks across multiple Sustainable Development Goals**, including SDG1 (poverty elimination), SDG3 (good health and well-being), SDG4 (quality education), SDG5 (gender equality) and SDG8 (decent work and economic growth). ComHEEG has projected global shortfall of 18 million health workers by 2030.

Conclusion

- The return on the investment on health sector skill development is clearly high and desirable. Considering the existing shortage of health workforce and need for skilling, re skilling and up skilling, urgent mechanisms need to be established by increasing funding to improve availability of skilled health workforce in India.