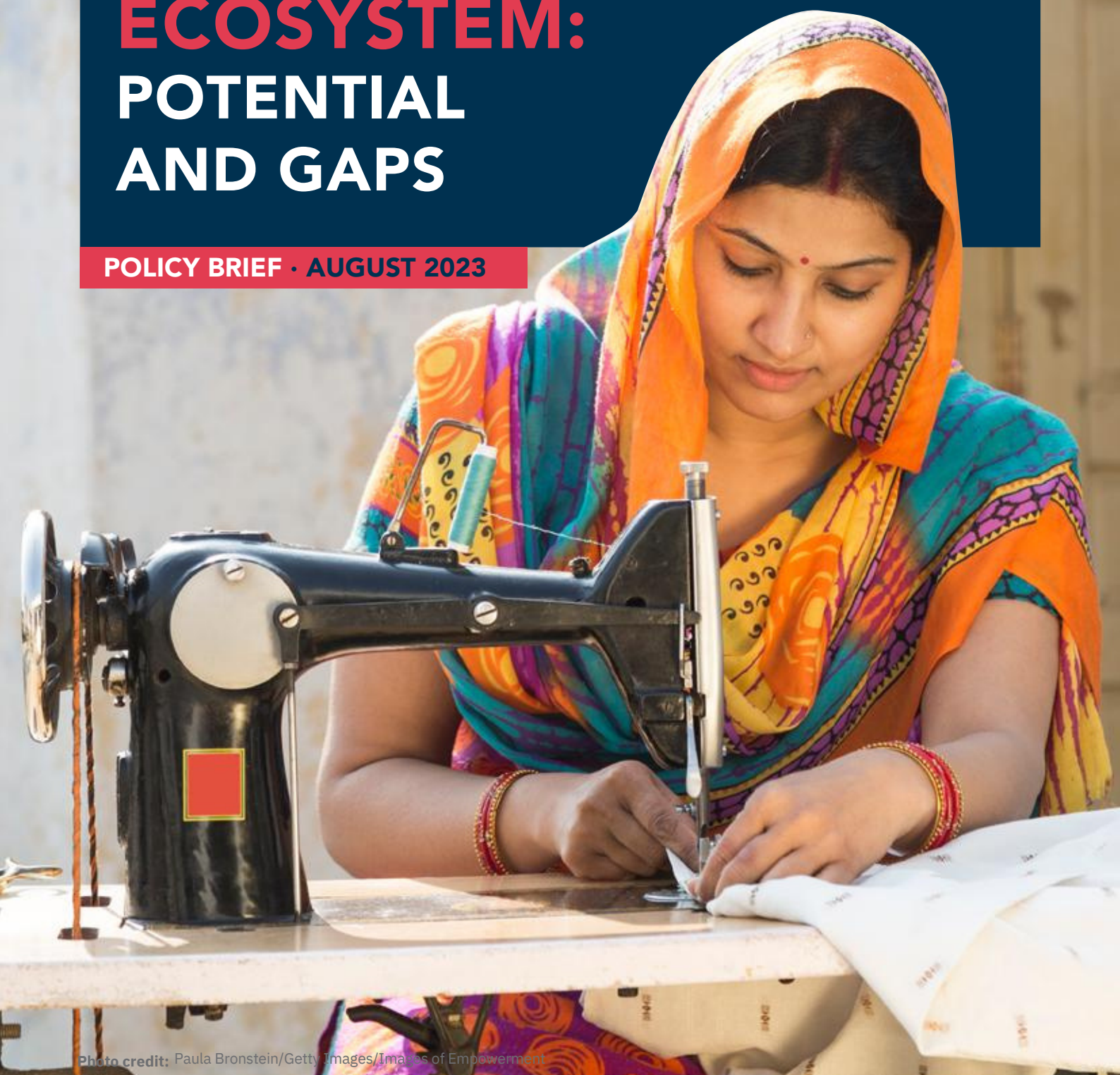# INDIAN SKILLING ECOSYSTEM:
POTENTIAL AND GAPS

POLICY BRIEF · AUGUST 2023

1. INTRODUCTION

To harness the demographic dividend, the skilling ecosystem in India has received significant attention and investment in recent years. Instances include setting up of the National Skill Development Corporation (NSDC), a corporation facilitating private-public collaboration in 2009, and the creation of the Ministry of Skill Development and Enterprises (MSDE), in 2015, to build a collaborative ecosystem. To position the country as the "Skill Capital of the World", several schemes were introduced to skill 400 million youth by 2022. Despite these efforts, Pradhan Mantri Kaushal Vikas Yojana (PMKVY), the flagship scheme of MSDE, has trained only 3 percent of the intended goal till 2023.

Concurrently, low female labour force participation (FLFP) remains a pressing challenge in India. Evidence shows that more than half of the women that are out of the labour force desire to be skilled. In other words, women engaged in domestic work say that they are willing to be employed but feel that they lack the skills to work in their desired fields (Fletcher et al., 2017). Also, women that are participating in the labour force are distress-driven and self-employed in the informal sector (Chaudhary and Verick, 2014).

As suggested by evidence, skill development programmes can allow women to enter the labour force. A forthcoming IWWAGE study shows that skilling is a great enabler of FLFP and increases retention of women in the labour force by almost 39 per cent. Evidence also suggests that it has a positive impact on earnings and the quality of jobs (World Bank, 2021). Skill development programmes specialised for women – either having tailored curricula, additional components of soft skills, or addressing gender-specific barriers – have demonstrated a positive effect on FLFP, long-term psychological well-being, etc. (J-PAL, 2023).

To maximise the impact of skilling on FLFP, it is crucial to address the challenges faced by women within the skilling ecosystem and also the labour market. The intersecting factors include mobility constraints that impede their access to training centres and employment opportunities outside home, the gender gap in job placement that predominantly favours men, and high drop-out rates experienced by women after job placement, etc. (Prillaman et al. 2017). The brief explores these challenges in the Indian skilling ecosystem as well as gaps in the transition from skilling to jobs.

2. INDIAN SKILLING LANDSCAPE:

A COLLABORATIVE AND COMPLEX SYSTEM

In 2015, MSDE was set up as the core ministry for the creation of a strong skilling ecosystem. It has brought together an umbrella framework by collaborating with the central government, ministries, state governments, industry, non-governmental organisations, and academia. It introduced the National Policy on Skill Development and Entrepreneurship (NPSDE) with the objective of scaling schemes and maintaining standard quality. It aims to link skill development with the employability and productivity of workers. The skilling courses offered by MSDE include PMKVY, Craftsmen Training Scheme (CTS), Crafts Instructor Training Scheme (CITS), and much more.

Although NPSDE has special provisions for women such as reservation of seats, accommodation facilities, sensitisation of trainers, etc., it lacks gender budgeting for schemes (MSDE Annual Report, 2022). The introduction and operationalisation of these measures would help create women-inclusive spaces (Ernst & Young, 2019). For instance, having budgetary allocations for setting up women-centric training centres which are cognisant of mobility constraints of women and provide necessary infrastructure, such as creches, would enhance enrolment of women.

NPSDE has established and brought together industry-led bodies working towards creation of an enabling environment and laying down regulatory requirements. A few of these bodies are listed below:

2.1 National Skill Development Fund

National Skill Development Fund (NSDF) came into existence in 2009 prior to the formation of MSDE with the aim of raising funds from both governmental and non-governmental sectors. The funds released by NSDF stand at INR 5,029.63 crores till 31 March 2021.

2.2 National Skill Development Corporation

National Skill Development Corporation (NSDC) is a public-private partnership incorporated on 31 July 2008. It was founded to facilitate capacity building of skill development programmes and forge strong alliances with the industries to capture their requirements. This corporation has an equity base of INR 10 crore – the Government of India holds 49 per cent and remaining the private sector.

NSDC has set up training centres called Industrial Training Institutes (ITIs) across India. Currently, there are about 15,000 ITIs out of which 16.83 per cent are specific to women. However, of total admissions in ITIs, only 6.6 per cent were women in 2021 (NITI Aayog, 2023) which shows their lack of gender diversity.

2.3 Sector Skill Councils

Sector Skill Councils (SSCs) are autonomous bodies incubated by NSDC for the creation of occupational standards, conducting training of trainers, affiliating vocational training institutes, and assessing and certifying trainees on the curriculum aligned to the National Occupational Standards (NOS). The councils update training programmes by identifying the latest requirements of industries. For instance, they have developed Qualification Packs (QPs) across nine emerging technologies such as cyber security, artificial intelligence, big data analytics, cloud computing, block chain, robotic process automation, Internet of Things, virtual reality, and social & mobile applications.

A gender mainstreaming framework has been created for streamlining courses according to the needs of women and designing relevant curricula with a gender lens. Also, the training of trainers programmes are designed specifically to cater to the needs of women. Currently, there is a pool of 10,910 such women trainers (NSDC, 2020). Despite such efforts, women reported that they perceive the centres to be male-dominated and unwelcoming. The need of the hour is to create centres that provide skills which are aligned to the demands of the industry and not conform to gender-normative trade (Ernst &Young, 2019; Just Jobs Network, 2022).

2.4 National Council for Vocational Education and Training

The National Council for Vocational Education and Training (NCVET) was set up in 2018 as the regulatory body to standardise the functioning of entities engaged in the skill development ecosystem. It is accountable for the monitoring and evaluation of recognised entities, and grievance redressal of the varied stakeholders. It is responsible for implementing the National Skills Qualification Framework (NSQF) and maintaining the National Qualification Register (NQR).

However, its functioning severely lacks inclusion of women. Firstly, the NCVET management information system (MIS) portal with publicly available administrative data contains limited gender-disaggregated information for ITIs. If the information is available, its reliability remains limited as it contains several inconsistencies and missing values. A report by NITI Aayog puts forth a case for its upgradation (NITI Aayog, 2023).

There are four[1] other portals that provide data on enrolment, training, assessment, certification, and placement of candidates of various skilling schemes at national, state, and district levels. Of these, only the Skill India Portal and MSDE Portal have gender-disaggregated data; however, the reliability of the data is questionable.

Secondly, the NCVET's monitoring and evaluation of the entities is inadequate. PMKVY's impact evaluation was conducted in 2019. The report lacks gender-disaggregated information. Lastly, there is a lack of clear protocol for the safety and security of women and a lack of system and awareness about grievance redressal for sexual harassment (Ernst & Young, 2019).
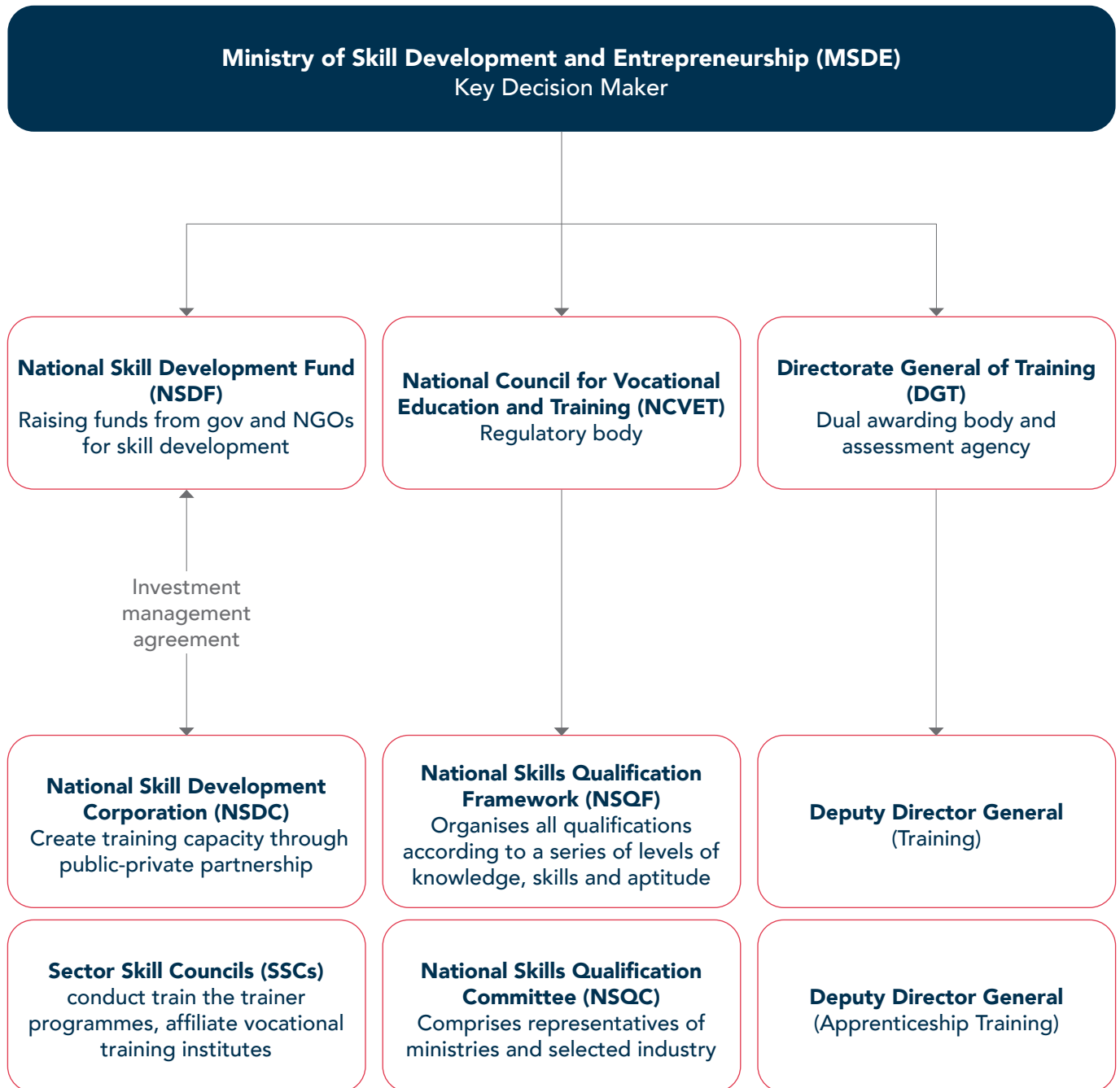
2.5 National Skill Quality Framework

National Skill Quality Framework (NSQF) is a framework based on the competency of beneficiaries which is used to categorise them. The initial qualification of beneficiaries includes a series of levels of knowledge, skills, and aptitude required to enrol in the scheme. These levels are necessary for them to possess irrespective of their past medium of learning. It is approved by the National Skill Quality Committee (NSQC) which comprises representatives from various government departments, industry experts, and stakeholders involved in skill development and training programmes.

2.6 Directorate General of Training

Directorate General of Training (DGT) is the apex organisation for the development and coordination of vocational training including those focused on women. Its main objectives are to frame overall policies; set up norms and standards; organise and conduct specialised training for specially established institutes; organise vocational training programmes for women, among others.

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[1] The four portals are Skill India, PMKVY Dashboard, NRLM, and MSDE.

Skilling ecosystem of MSDE

Ministry of Skill Development and Entrepreneurship (MSDE)
Key Decision Maker

National Skill Development Fund (NSDF)
Raising funds from gov and NGOs for skill development

National Council for Vocational Education and Training (NCVET)
Regulatory body

Directorate General of Training (DGT)
Dual awarding body and assessment agency

Investment management agreement

National Skill Development Corporation (NSDC)
Create training capacity through public-private partnership

National Skills Qualification Framework (NSQF)
Organises all qualifications according to a series of levels of knowledge, skills and aptitude

Deputy Director General
(Training)

Sector Skill Councils (SSCs)
conduct train the trainer programmes, affiliate vocational training institutes

National Skills Qualification Committee (NSQC)
Comprises representatives of ministries and selected industry

Deputy Director General
(Apprenticeship Training)

3. KEY SKILLING PROGRAMMES

There exists a slew of skill development programmes by various ministries such as the Ministry of Rural Development, Ministry of Minority Affairs, Ministry of Electronics and Information Technology (MeitY), Ministry of Home Affairs (MHA), etc. The latter two provide digital skill training to youth and public officials in courses relating to the latest advancement in technology. The digital skilling programmes lack gender-disaggregated information on candidates enrolled, trained, certified and placed.

A few of these skill development programmes are listed below:

3.1 Pradhan Mantri Kaushal Vikas Yojana

PMKVY is the flagship scheme of MSDE which was initiated in 2016 to provide industry-relevant skill training to Indian youth to help them secure improved livelihoods. The scheme has three components: Short Term Training (STT), Recognition of Prior Learning (RPL), and Special Projects. STT is offered to school/college dropouts and the unemployed population. Along with industry-relevant training, the course imparts training in soft skills, entrepreneurship, financial and digital literacy. RPL assesses and certifies individuals with prior learning experience or skills. Special Projects envisage creation of platforms beyond the former schemes which are not mentioned in the Qualification Packs (QPs) or National Occupational Standards (NOS). The projects are specifically designed to meet the needs of marginalised groups, among others.

As of now,[2] 63.9 lakh women have enrolled in PMKVY courses, 59.86 lakh have been trained, 54.84 lakh have been assessed, around 49 lakh have been provided certification, of which 12.69 lakh have been placed. Since its inception, the participation of women stands at 43 per cent.[3] A gender analysis of PMKVY from 2016-20 shows that women outperform men across all age groups and almost at every age group. The percentage of women getting trained is also higher than that of men (Skill India, 2020).

3.2 Jan Shikshan Sansthan

Formerly named Shramik Vidyapeeth, Jan Shikshan Sansthan (JSS) was established in 1967 and became a part of MSDE in July 2018. It works to improve the skills of those without literacy; identify and promote traditional skills; promote self-employment; and facilitate access to financial support, etc. The 301 JSSs that are a part of the ecosystem have trained and assessed around 5.09 lakh and 4.98 lakh beneficiaries, respectively.[4] Even though the scheme is not women-centric, around 85 per cent of beneficiaries are women.

3.3 Deen Dayal Upadhyaya - Grameen Kaushalya Yojana

Deen Dayal Upadhyaya - Grameen Kaushalya Yojana (DDU-GKY)is an initiative of the Ministry of Rural Development that aims to build placement-linked skills for the poor rural youth and provide placement in wage employment in different sectors of the economy. In 2022, 14.23 lakh candidates were trained, 11.93 lakh assessed and 8.66 lakh placed. The scheme has an outcome-led design that guarantees placement for at least 70 per cent of the trained candidates. There are women-centric provisions such as one-third of the trained candidates should be women and they are given an age relaxation for enrolment.

3.4 National e-Governance Division

The National e-Governance Division (NeGD) is an organisation of MeitY which is responsible for implementing the capacity building scheme. The scheme works towards strengthening capacities within government departments at both central and state levels. In 2015, a Learning Management System (LMS) was set up which aids in the provision of the courses. The training programmes are structured to provide upskilling in line with particpants' pre-defined job role (MeitY, 2018).

An initiative of NeGD, in association with National Law Institute University, Bhopal, is the Online Post Graduate Diploma in cyber law, cybercrime investigation, and digital forensics. It is a nine-month programme that offers practical training to thousands of officials including the police, state cyber cells, law enforcement agencies, prosecutors, and judicial officers through the LMS. This course aims to equip professionals with the ability to handle cybercrime cases by using digital forensics efficiently.[5]

3.5 Centre for Development of Advanced Computing

The Centre for Development of Advanced Computing (C-DAC) is another organisation under MeitY that provides formal and informal training programmes to students. Post Graduate Diploma courses are offered in software development, electronics, software, artificial intelligence and data science, high-performance computing, security and blockchain, informatics, etc. Training activities are dedicated to creating high-quality manpower for research and development and the IT industry in general. The courses are provided through the Advanced Computing Training School, set up at 11 locations, and a network of 15 authorised training centres in India.

3.6 Information Security Education and Awareness

Information Security Education and Awareness (ISEA) is a multilingual web portal that provides a variety of non-formal courses in information security (Diploma/Post Graduate Diploma/ Certificate) by C-DAC and other short-term training programmes for one to two weeks. The upskilling is aligned with NSQF, with the trainees getting access to exclusive career fairs, internships, hackathons, and opportunities to engage with industry professionals. The portal has 27,765 general users, 1,30,707 academic users, and 52,313 government users.[6]

3.7 FutureSkills Prime

This is a joint initiative by the MeitY and the IT industry led by NASSCOM that offers courses in data science, business intelligence analysis, information security analysis, machine learning, etc. The content of the courses aligns with NOS and NSQF.[7]

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[2] Data retrieved from https://reports.skillindia.gov.in/ on 7 June 2023.
[3] Data accessed through Skill India Portal https://reports.skillindia.gov.in/
[4] The information was retrieved from https://jss.gov.in/# on 7 June 2023.
[5] https://d32jquim0n1d64.cloudfront.net/2023/03/NEGD-Brochure_V8.pdf
[6] https://www.infosecawareness.in/ The information was retrieved on 6 June 2023.
[7] https://futureskillsprime.in/FSP_documents/FSP_Brochure.pdf?ver=2.0

4. CHALLENGES FACED BY WOMEN IN SKILL DEVELOPMENT PROGRAMMES

Despite the above-mentioned provisions for addressing normative challenges faced by various entities in the ecosystem, evidence suggests that women continue to face hurdles through all stages, starting from enrolment in skill development programmes to transitioning from training to jobs. A few challenges are:

4.1 Subscribing to gender normative trades

Across schemes, women conform to gender normative trades during the selection of courses while dealing with a lack of information or counselling. Those that enrol in engineering and manufacturing courses find themselves in a male-dominated environment and receive differential treatment from their instructors and male counterparts (Ernst &Young, 2019; Just Jobs Network, 2022).

The participation of women across various courses further amplifies the gendered nature of course selection. Only five STT courses of PMKVY have more than 50 per cent women's participation. These are beauty & wellness, apparel, media & entertainment, healthcare, and IT-ITeS. Courses with the lowest female participation include construction (6 per cent), automotive (11 per cent), and power (15 per cent) (Skill India, 2022).

4.2 Drop-out of women candidates

According to administrative data, 1.45 per cent of female candidates enrolled in the STT course of PMKVY drop out without completing the training (Skill India, 2022). Though for ITIs, as a whole, the dropout rate is about 20 per cent of the enrolled female candidates. The main reasons cited for dropping out in a primary survey included marriage, mobility constraints, personal problems, lack of accommodation facilities, and safety issues (Ernst & Young, 2019).

4.3 Placement of women candidates

A study by Prillaman, et al. (2017) finds that only 40 per cent of female trainees are likely to get employed. The study also shows that 72 per cent of female trainees and 85 per cent of male trainees are likely to receive job offers after skilling. Of these, only 56 per cent of female trainees and 70 per cent of male trainees accept the job offer. The location of the job is the key determinant of whether the job is accepted or not. Thus, migration is cited as one of the main reasons which dissuades women from joining work (Prillaman et al, 2017).

4.4 Operational barriers

The qualitative study by Ernst & Young pointed out operational barriers such as the low instructor-trainee ratio. Factors that impact the experience of trainees at ITIs include poor quality of equipment used for teaching, non-availability or insufficient supply of material for training such as teaching or learning materials especially in vernacular languages, and lack of career guidance at all levels. There were instances where women who wanted to get enrolled were recommended courses based on the availability of seats and not on an assessment of the aptitude of individuals.

4.5 Willingness of employers

Despite provisions for mobilising business partnerships in NSDC and SSCs, their presence at the state level remains limited. Thus, there is a lack of alignment between the course content and demands of the labour market. With exponential technological advancements, the synergy needs to be stronger to continuously adapt to changing skill requirements. Also, evidence suggests that employers are biased toward hiring men over women because of certain factors such as the requirement of working late, handling heavy machinery, etc. This shows that gender normative perceptions still hold which coerces women to continue to work in feminised occupations (Just Jobs Network, 2022).

4.6 Post-placement support

A study done by Prillaman, et al. (2017) identifies demographic and structural characteristics which prevent women from retaining their job roles for a longer time. Demographic factors include non-migration and the age of the candidate; structural factors include lack of assistance in finding accommodation, opening a bank account, accessing government benefits, etc. In 2015, a World Bank study on Labor Market Impacts and Effectiveness of Skills Development Programmes in five states in India (Assam, Andhra Pradesh, Madhya Pradesh, Odisha and Rajasthan) found that the percentage of women employed after one to two years of training increases from 26 per cent to 28 per cent while, for men, the placement rate remains the same. There is some variation across schemes; it is notable that, for NSDC, the percentage employed falls from 27 per cent to 21 per cent. Also, the employability of trainees increases by 7 percentage points overall with a stronger effect on women.

5. CONCLUSION

While skilling is touted as a significant enabler of enhancement of FLFP, this brief looked at the challenges women face to access skill development programmes that would suit their needs. The challenges encountered by women are multi-fold starting from restricted choices of courses to inability to retain the job offers because of lack of post-placement support. There are special provisions for women to address these issues but their implementation remains limited. In addition, the lack of good quality gender-disaggregated data on skilling makes it even more difficult to assess and examine the impact of existing skilling programmes on women and girls, in general, and their labour force participation, in particular.

An important way forward could be to harness the synergies between public and private sectors and increase collaborative efforts towards building skills of young girls and women. It is also pertinent to create an enabling skilling ecosystem not only on paper but also with proper implementation.

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Note to readers

About IWWAGE

Institute for What Works to Advance Gender Equality (IWWAGE) aims to build on existing research and generate new evidence to inform and facilitate women's economic empowerment agenda. IWWAGE is an initiative of LEAD, an action-oriented research centre of IFMR Society (a not-for-profit society registered under the Societies Act). LEAD has strategic oversight and brand support from Krea University (sponsored by IFMR Society) to enable synergies between academia and the research centre.

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About this brief

This brief is authored by Aparna G and reviewed by Dr. Sona Mitra and Dr. Bidisha Mondal, IWWAGE – LEAD at Krea University. Production team included Pallavi Duggal, and Sakthivel Arumugam.

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