

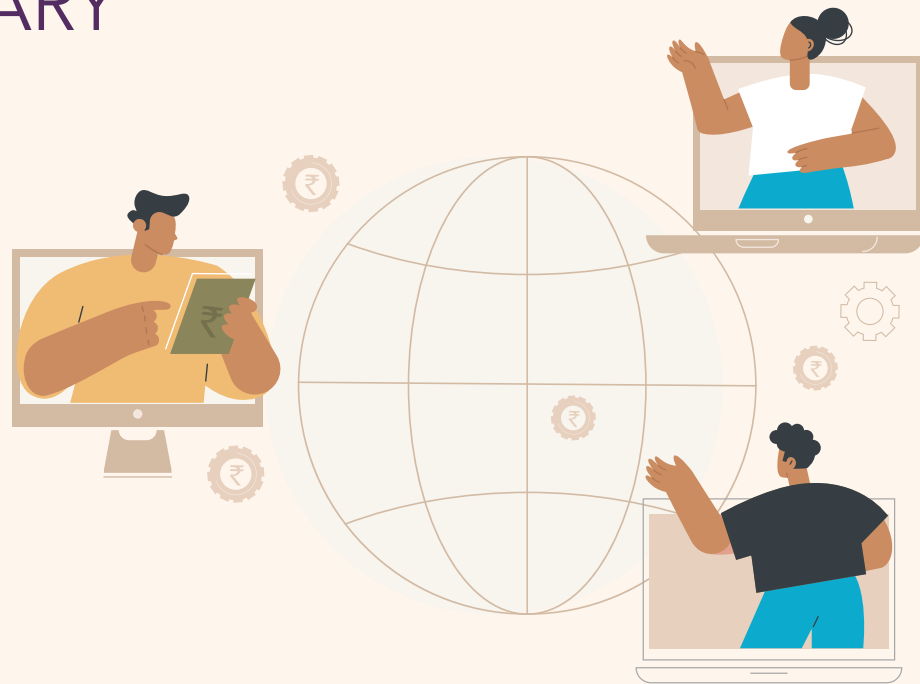
# DESIGNING GENDER RESPONSIVE APPRENTICESHIP PROGRAMS



**POLICY BRIEF 2** in the  series  
'Women and the future of work'

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# EXECUTIVE SUMMARY



The National Apprenticeship Promotion Scheme (NAPS) and the National Apprentice Training Scheme (NATS) are government initiatives that aim to improve skill development and increase employment opportunities. However, the data reveals that an overwhelming majority of apprentices are male, indicating a lack of gender responsiveness in the scheme and its implementation. To bridge this gender gap, several recommendations are proposed. First, collecting gender-disaggregated data can help understand women's choices and identify new opportunities for participation. Second, incentivizing employers to hire more women apprentices and providing additional allowances can encourage greater female participation. Third, awareness campaigns targeted at women can help increase their understanding and interest in apprenticeship programs. Fourth, creating gender-sensitive infrastructure and addressing social norms that inhibit women's participation will create a more inclusive environment. Finally, integrating NAPS onto the upcoming DESHStack portal can enhance women's access to employment opportunities and streamline their transition to the labour market. Implementing these recommendations will lead to a more gender-inclusive apprenticeship system, promoting economic growth and prosperity for women.

# FEMALE LABOUR FORCE PARTICIPATION IN INDIA



It is widely known that women's labour force participation rate in India needs policy attention. Although 66.8% women in India are in the working age, their labour force participation rate stands at a mere 35.6%,<sup>1</sup> compared to men (81.8%); and their employment is mostly confined to the informal sector.<sup>2</sup> Skill development is an important lever for increasing female labour force participation and meeting the targets set by the United Nations Sustainable Development Goals (SDGs) of full and productive employment and decent work. The PLFS survey (2021-22) notes that a mere 3.4% of working age people (3.0% women and 3.7% men) had any formal vocational training,<sup>3</sup> indicating the extent of untapped potential and a dire need for skill development.

However, skilling without the means to transition to an occupation cannot enhance economic prospects for women. Apprenticeships, therefore, offer the right mix of job relevant skill training with a career pathway. According to the International Labour Organisation (ILO), apprenticeship is important for the future of work.<sup>4</sup> In fact, the ILO promotes the idea of "quality apprenticeships" built on six key ideas - meaningful social dialogue, robust regulatory framework, clear roles and responsibilities, equitable funding arrangements, strong labour market relevance, and inclusiveness.<sup>5</sup> In the context of the future of work, apprenticeships, and specifically quality apprenticeships, can improve the employability of youth and adults by skilling, reskilling, and upskilling, regardless of age or gender. They can also assist governments in keeping the learning systems contemporaneous with the job market.<sup>6</sup> From a gender lens, apprenticeships become even more important, given that they not only promise technical skills to women, they also are a means for participants to get life skills and a sense of agency needed for more permanent employment.

<sup>1</sup>[https://www.mospi.gov.in/sites/default/files/publication\\_reports/AnnualReportPLFS2021-22F1.pdf](https://www.mospi.gov.in/sites/default/files/publication_reports/AnnualReportPLFS2021-22F1.pdf)

<sup>2</sup>[https://dge.gov.in/dge/sites/default/files/2022-07/Annual\\_Report\\_PLFS\\_2020-21\\_0\\_0.pdf](https://dge.gov.in/dge/sites/default/files/2022-07/Annual_Report_PLFS_2020-21_0_0.pdf)

<sup>3</sup>[https://www.mospi.gov.in/sites/default/files/publication\\_reports/AnnualReportPLFS2021-22F1.pdf](https://www.mospi.gov.in/sites/default/files/publication_reports/AnnualReportPLFS2021-22F1.pdf)

<sup>4</sup>[https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---ifp\\_skills/documents/publication/wcms\\_781488.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_781488.pdf)

<sup>5</sup>[https://www.ilo.org/global/topics/apprenticeships/WCMS\\_743634/lang--en/index.htm#faq3](https://www.ilo.org/global/topics/apprenticeships/WCMS_743634/lang--en/index.htm#faq3)

<sup>6</sup>[https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---ifp\\_skills/documents/publication/wcms\\_781488.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_781488.pdf)

# EVOLUTION OF APPRENTICESHIP EFFORTS IN INDIA

The National Apprenticeship Scheme was launched in 1959, aiming to promote apprenticeship voluntarily with a focus on meeting the demand for craftsmen. However, it was the Apprentices Act of 1961 that expanded the scope of apprenticeship and introduced regulations to align training with industry requirements. Over the years, amendments were made to enhance apprenticeship opportunities, address representation issues, and ensure compliance.<sup>7</sup>

Under the Apprentices Act of 1961, establishments with more than six employees have the potential to engage apprentices, with a range of 2.5% to 10% of their total workforce. This presents a significant opportunity for training and upskilling the workforce. According to a Government of India assessment from 2015, establishments in central public sector undertakings, the central government, banking sector, and eligible MSMEs engaging a minimum number of apprentices could create a skilled workforce of over 20 lakhs.<sup>8</sup> The most recent amendment in 2014<sup>9</sup> aimed to reduce compliance burdens while expanding the scope of apprenticeships to include more industries. Despite these efforts, research indicates low uptake, often attributed to compliance burdens and lack of incentives.<sup>10</sup>

Currently, the Government of India operates two apprenticeship programs: the National Apprentice Promotion Scheme (NAPS, 2016) and the National Apprentice Training Scheme (NATS, 1973). While NAPS offers a comprehensive approach to apprenticeship, encompassing a diverse array of trades and sectors, NATS takes a more specialised route, catering primarily to technical fields. Therefore, in this brief, we are focusing on NAPS as it is more inclusive in design, accommodating apprentices from various backgrounds and fostering a diverse pool of skilled workforce for the nation's growth and development. Industrial Training Institutes (ITI) serve as an important arterial route to apprenticeships under NAPS.

## NATIONAL APPRENTICESHIP PROMOTION SCHEME (NAPS)

The National Apprenticeship Promotion Scheme (NAPS) was initiated in 2016 by the Ministry of Skill Development and Entrepreneurship (MSDE) to promote skill development through apprenticeships. The scheme offers financial support to establishments that engage apprentices, with the government sharing 25% of the stipend per apprentice (up to Rs. 1500) and reimbursing up to Rs. 7500 of training costs.<sup>11</sup> NAPS links courses under PMKVY and DDU-GKY with apprenticeship training to prepare candidates for the job market.

The training consists of two components: basic training, covering 20-25% of the program duration, providing essential theoretical and practical instructions, and on-the-job training, constituting the remaining duration, where apprentices gain hands-on experience at the establishment. Apprentices undergo assessment and receive certification based on their performance.

<sup>7</sup> <https://ficci.in/spdocument/23143/Implementation-of-Apprenticeship-in-India.pdf>

<sup>8</sup> [http://www.apprenticeship.gov.in/material/naps\\_guidelines.pdf](http://www.apprenticeship.gov.in/material/naps_guidelines.pdf)

<sup>9</sup> <https://www.msde.gov.in/en/about-msde/acts-and-rules>

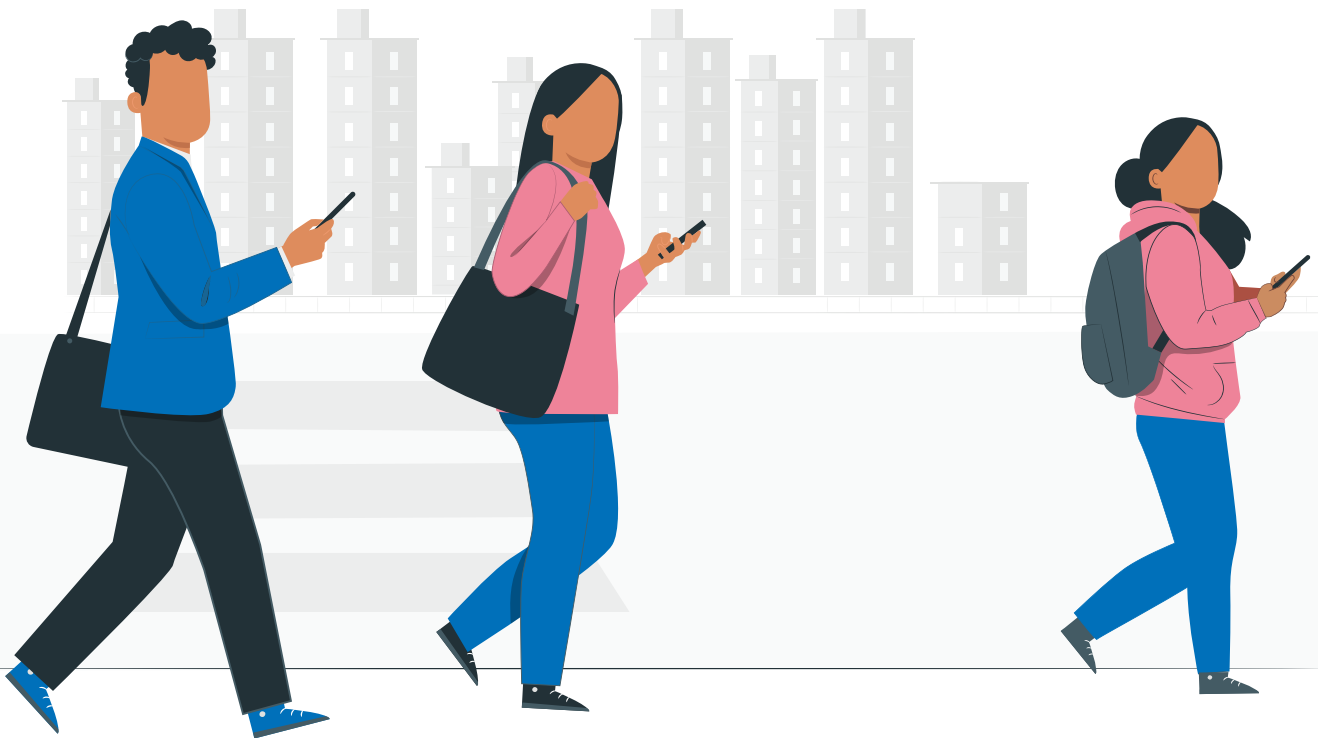
<sup>10</sup> <http://www.isec.ac.in/WP%20440%20-%20K%20Gayithri,%20Malini%20L%20T%20and%20D%20Rajasekhar%20-%20Final.pdf>

<sup>11</sup> <https://s3.ap-south-1.amazonaws.com/naps-cdn/naps-guidelines.pdf>

Under the NAPS, there are 181 designated trades, many of which are traditionally perceived as more suitable for men. In addition, there are optional trades that include various subjects in engineering, non-engineering, technology, or vocational courses, determined by the employer. Optional trades can be courses under PMKVY, MES-SDI, or approved by State Governments/Central Government, with a duration of 20-25% of the total apprenticeship training duration as basic training components. Employers can also decide on trades with a similar basic training component duration.

A 2019 assessment of the NAPS by TQH Consulting<sup>12</sup> reports that it is a unique skill development scheme with effective stakeholder alignment and industry-friendly features. The scheme encourages apprenticeships through online registration and DBT transfers, resulting in a significant increase in apprentices. The Ministry of Skill Development and Entrepreneurship conducts Apprenticeship Melas across states, generating awareness and increasing apprentices' recruitment. This initiative has contributed to a significant increase in the number of apprentices, from 2.9 lakh in 2020-2021 to 5.8 lakh in 2021-2022.<sup>13</sup>

Despite this, the representation of apprentices in the Indian labour force is dismal. In countries like Germany, apprentices make up nearly 3-4% of the labour force,<sup>14</sup> whereas in India, that number is close to 0.1%.<sup>15</sup> Experts argue that the potential capacity for apprenticeships, given the size of the workforce, could range from 2 to 2.5 million contracts; however, the NAPS falls significantly short at only 2.6 lakh contracts.<sup>16</sup> Further, the amendments to the Apprenticeship Act stipulate an ideal range of 250 to 1,500 apprentices for every 10,000 employed workers. However, the actual number of apprentices per 10,000 workers is a meagre 7.<sup>17</sup> This disparity is attributed to the reluctance of eligible small and medium enterprises (SMEs) and large private organisations to engage apprentices.



<sup>12</sup> <https://thequantumhub.com/wp-content/uploads/2020/12/Skill-Development-Section-WEE-Policy-Landscape-Study-Final.pdf>

<sup>13</sup> <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1847953>

<sup>14</sup> <https://www.ced.org/blog/entry/apprenticeships-and-labor-market-information-what-works>

<sup>15</sup> <https://blog.mygov.in/editorial/can-apprenticeship-work-in-india/>

<sup>16</sup> <https://dashboard.apprenticeshipindia.org/landingSummary.do>

<sup>17</sup> [https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---ifp\\_skills/documents/publication/wcms\\_872249.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_872249.pdf)

# CHALLENGES IN NAPS DESIGN: GENDER DISPARITY AND POLICY GAPS



NAPS has disproportionately benefited men over women until now. According to the NAPS dashboard, NAPS has engaged 20,49,297 apprentices from 2018 to June 2023, of which 80% are male (16,44,071) and 20% female (4,07,568). While this dashboard does not provide details of apprentices trained and certified, in a Lok Sabha response from December 2021, Minister of State for Skill Development and Entrepreneurship, Rajeev Chandrasekhar noted that according to NAPS data from 2018-19 to 2021-22, 3,01,556 male candidates have been trained while only 61,842 women candidates have been trained during the same time.<sup>18</sup>

Some reasons which could be attributed to causing this disparity include:

## a. Inconsistent Budget Allocation and Lack of Gender Targets:

There is no gender disaggregated budget allocated to women nor does any apprenticeship scheme, including the NAPS, find any mention in Statement 13 of the Gender Budget in 2021-22 budget estimate (BE) and 2022-23 BE. In the 2023-24 Union Budget Speech, the Finance Minister also announced stipend support for 47 lakh apprentices over three years via direct benefit transfers, however no gender disaggregated targets were announced.

The government has only recently started publishing a NAPS dashboard that captures some gender disaggregated data, however it still falls short in providing comprehensive insights into women's participation in specific trades, the number of women completing training, overlap of gender and educational

<sup>18</sup> <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1778477>

qualifications and gender disaggregated data by states. Such insights can help policymakers, training institutes and civil society to plan interventions which are better suited for women.

In terms of overall allocation, NAPS has been incorporated into the composite Skill India Programme, which has a total budget allocation of Rs. 2278.37 crore in 2023-24. It received INR 170 crore in the 2022-23 BE and INR 120 crore in the Revised Estimate for 2020-21. Overall, the trend of allocation to the NAPS seems inconsistent over the years and overall remains a paltry sum when seen considering the stated goal of training 50 lakh youth by 2020 – a target which has already been missed by some margin. This indicates that the budgetary priority given to NAPS has been lacklustre and requires revision.

### b. Occupational Segregation and Stereotypes:

Skill training schemes and programs have historically retrenched traditional gender norms and notions of women's work, mostly restricted to household-related tasks and caregiving, effectively keeping women out of more remunerative – and often male-dominated sectors like construction and real estate, transportation and logistics, electronics, IT hardware, the auto industry, or the pharma industry. Though policies like 'Skill India' stress on the need for non-traditional occupations for women, they sparingly go beyond rhetoric and the absorption of women into more remunerative traditionally male-dominated sectors remains low.

The NAPS also does not make special provisions for women to seek apprenticeships in such sectors. Male-dominated sectors and occupations are more likely to reinforce regressive gender stereotypes and create unfavourable environments that impose barriers for women to work in such higher remunerative sectors.<sup>19</sup> This results in occupational segregation and a widening gender pay gap. According to scholars, the primary reasons why women do not take up employment in male-dominated sectors are as follows:

- Societal expectations and beliefs about women's leadership abilities<sup>20</sup>
- Pervasive stereotypes, such as that of the "caring mother"<sup>21</sup> or office housekeeper<sup>22</sup>
- Higher stress and anxiety compared to women working in other fields<sup>23</sup>
- Lack of mentoring and career development opportunities<sup>24</sup>
- Sexual harassment<sup>25</sup>

Lack of other female colleagues and leadership resulting in a weakened sense of belonging.

### c. Lack of representation in feeder institutes:

According to a report published by the NITI Aayog in January 2023, the number of women enrolled in ITIs accounted for 6% of all candidates. Further, active women-only ITIs in the country only accounted for 16.8% of all ITIs in the country.<sup>26</sup>

Further, the scheme design neglects the critical issue of girls' transition from education to jobs through apprenticeships. This omission reflects a lack of comprehensive planning, where girls face discrimination not only in the workplace but also within educational institutions. The absence of measures to rectify discriminatory practices and social norms leaves girls without the necessary support for a smooth and equitable transition into apprenticeships.

### d. Insufficient Provisions for Female Apprentices:

Considering women's lack of access to digital and financial tools, including bank accounts, the schemes require online registration and direct transfer which may be pushing women away from accessing apprenticeships.

<sup>19</sup> <https://journals.sagepub.com/doi/abs/10.1177/1534484319861169?journalCode=hrda>

<sup>20</sup> <https://journals.sagepub.com/doi/abs/10.1177/1534484319861169?journalCode=hrda>

<sup>21</sup> <https://www.mdpi.com/2076-0760/7/3/32>

<sup>22</sup> <https://spssi.onlinelibrary.wiley.com/doi/full/10.1111/josi.12289>

<sup>23</sup> <https://link.springer.com/article/10.1007%2Fs10902-018-0039-3>

<sup>24</sup> <https://www.catalyst.org/research/sexual-harassment-in-the-workplace-how-companies-can-prepare-prevent-respond-and-transform-their-culture/>

<sup>25</sup> <https://www.catalyst.org/research/sexual-harassment-in-the-workplace-how-companies-can-prepare-prevent-respond-and-transform-their-culture/>

<sup>26</sup> [https://www.niti.gov.in/sites/default/files/2023-02/ITI\\_Report\\_02022023.pdf](https://www.niti.gov.in/sites/default/files/2023-02/ITI_Report_02022023.pdf)

### e. Lack of supporting infrastructure:

Further, NAPS does not make any special provisions for female apprentices, such as support for transport, safety at the workplace and gender-inclusive infrastructure. Women apprentices face numerous challenges, including the lack of mobility options while travelling to remote locations for work, absence of adequate, functional toilets at the workplace, lack of counselling and orientation during their apprenticeships, difficulties in dealing with work alongside family responsibilities and childcare obligations, and the perception of workplaces as male-dominated, with many more male trainers than female.<sup>27</sup>

In addition to these policy gaps, apprenticeships and vocational training may often be perceived as lacking in aspiration or desirability among certain segments of the population. Many individuals, particularly the youth, may not view these skill development pathways as attractive or prestigious career options compared to traditional academic routes.<sup>28</sup>



<sup>27</sup> [https://dgt.gov.in/sites/default/files/Gender\\_Study\\_1.pdf](https://dgt.gov.in/sites/default/files/Gender_Study_1.pdf)

<sup>28</sup> <https://www.nationalskillsnetwork.in/vocational-training-aspirational/>



# GOOD PRACTICES FROM AROUND THE WORLD

## a. Driving Economic Growth through Dual Vocational Education and Training (VET): Germany

### **Dual VET System and Public-Private Collaboration:**

The German economy, known for its low unemployment rates, is considered one of the strongest apprenticeship ecosystems in the EU. The Dual VET system plays a significant role in this achievement.<sup>29</sup> The system exemplifies successful public-private partnerships. Apprenticeships in Germany involve a collaboration between vocational schools and employers. Vocational schools provide both technical instruction and general education, while employers offer valuable on-the-job training. Enterprises hire and train apprentices as part of their Corporate Social Responsibility (CSR) policy. Apprentices typically spend 70% of their time at the workplace and the remaining 30% at vocational schools.<sup>30</sup>

**Clear Roles and Responsibilities:** The German apprenticeship model establishes clear roles and responsibilities among stakeholders. While the state sets the national policy and runs subsidised vocational schools, it is the industry that is directly responsible for organising training, setting the number of apprenticeship positions, and handling finances. The training process is guided by Dual VET standards, which include employer-based training standards and vocational education standards. To keep pace with evolving workforce requirements, the Dual VET standards undergo continuous updates. This process involves collaboration among employers, partners, and the government, with guidance from the Federal Institute for Vocational Education and Training (BiBB). Further, by establishing shared standards, apprentice training extends beyond individual company requirements to encompass entire trades. This broader approach enhances the mobility of skilled workers between companies, benefiting the industry as a whole and contributing positively to the national economy. Whenever training regulations are modified, corresponding updates are made to the framework



curriculum of vocational schools. In essence, the Dual VET standards establish a comprehensive nationwide system that ensures the delivery, monitoring, supervision, and support of vocational education and training.<sup>31</sup>

**Positive Perception:** Apart from the seamless collaboration with the industry, what truly sets the German system of dual VET apart is that it is perceived to be a respectable career path and not relegated to those facing academic challenges or hardships. It is a comprehensive system that incorporates an early tracking system around the age of 12. This means that the German apprentices tend to have strong foundational literacy and numeracy skills to begin with, setting them up for higher success in terms of completion and employment. Additionally, the system remains flexible, allowing students to switch between tracks and return to general education if desired.<sup>32</sup>

<sup>29</sup> <https://www.gisreportsonline.com/r/germany-vocational-education-system/>

<sup>30</sup> <https://www.urban.org/sites/default/files/publication/104677/bridging-german-and-us-apprenticeship-models.pdf>

<sup>31</sup> <https://www.urban.org/sites/default/files/publication/104677/bridging-german-and-us-apprenticeship-models.pdf>

<sup>32</sup> <https://www.gisreportsonline.com/r/germany-vocational-education-system/>

# GOOD PRACTICES FROM AROUND THE WORLD

## b. Leveraging Intermediaries for Successful Apprenticeships: Australia

### Facilitating Apprenticeship Arrangements:

Group Training Organisation (GTO) is an intermediary that facilitates employment and training arrangements of apprentices and host employers through training contracts. It was initiated by the Australian government in the 1970s. GTOs play a vital role in hiring apprentices and trainees and placing them with host employers across Australia. They assume employer responsibilities, such as recruiting, managing wages, training quality, and providing support for apprentices. GTOs strive to create more employment opportunities, ensure continuity in employment and training, and enhance training quality by employing apprentices, coordinating with host employers, and providing ongoing support throughout the apprenticeship. GTOs also enhance training experiences by moving apprentices between host employers, ensuring competency attainment. Additionally, they provide access to apprenticeships for those facing barriers in the labour market, contribute to community services, and promote vocational education and training, ultimately encouraging employment growth. It supports employers by providing funds for employing apprentices/trainers, especially for those who may be unable to employ apprentices. Few roles and responsibilities include selection and recruitment of apprentices, management and continuity of training, monitoring apprentices progress etc.<sup>33</sup>

**Risk minimization for employers:** GTOs are advantageous for employers who cannot or choose not to support an apprentice or trainee for the full term of their apprenticeship or traineeship, especially for small or specialised employers, and for those who prefer not to handle the administrative responsibilities involved in recruitment, management, and training of apprentices or trainees.<sup>34</sup> In order to incentivize employers to hire apprentices, special provisions have been made by the GTO that benefit both the employers and apprentices. There are three sets of provisions: firstly, a wage subsidy for the employer of



apprentices in priority occupations, the subsidy is 10 percent of the apprentice's wage in the first two years and 5 percent in the third year. Secondly, direct payment to apprentices to help them with the pressures of increasing cost of living and to retain them in apprenticeship. Lastly, hiring incentives are given to employers in occupations excluded from the priority list.<sup>35</sup>

**Achieving Diversity:** The representation of women and Indigenous people in apprenticeships remains limited, but Group Training Organizations (GTOs) are making strides in addressing this disparity. Despite the potential for millions of apprenticeship contracts, the current numbers fall short due to reluctances from certain organisations. GTOs actively challenge stereotypes, offer mentoring support, and create inclusive environments for aspiring women in non-traditional trades. They also work to showcase the strengths of Indigenous cultures while providing guidance and cultural awareness. Through visible role models and networking groups, GTOs drive positive change, fostering diversity and empowering untapped talent for economic growth.

<sup>33</sup> <https://www.australianapprenticeships.gov.au/about-gto>

<sup>34</sup> <https://www.business.qld.gov.au/running-business/employing/hiring-recruitment/apprentices-trainees/about/partners/group-training-organisations>

<sup>35</sup> <https://www.dewr.gov.au/download/13995/australian-apprenticeships-incentive-system-guidelines/31856/australian-apprenticeships-incentive-system-guildeines/docx>

# POTENTIAL SOLUTIONS TO BRIDGE POLICY GAPS



Bringing gender sensitivity to Apprenticeship interventions to cater to women's needs and encourage their participation is of paramount importance. Additionally, it is equally important to focus on expanding the overall scope and availability of apprenticeships across various sectors and industries.

We propose a series of recommendations to enhance apprenticeship opportunities and promote equitable participation, particularly focusing on expanding the scope of apprenticeships across sectors and industries, and ensuring greater inclusivity for all genders.

## Mobilising communities to increase women's participation

In order to increase women's participation in apprenticeships in general and traditionally male-dominated sectors in particular, it is also important to garner support from their families and communities. To overcome social inhibitors, a bottom-up approach to skilling could lead to improved results. Such a strategy could involve using local school/college leaders and self-help group leaders to identify women workers and help them register as apprentices. Local social media influencers can also be roped in for information campaigns. Additionally, they can help dispel stereotypes about women in work – especially in male dominated sectors – and encourage families to support women seeking employment.

## Increase budgetary allocations and set gender-disaggregated targets in the scheme

Currently, the latest NAPS guidelines highlight targets for each year between 2016-2020, however, there isn't a specific target for women or any other marginalised groups within this.<sup>36</sup> Setting specific targets, and commensurate budget provisions could address this gap. Using this as a base, allocations for the NAPS may be increased with specific targets to achieve increased participation of women in the scheme. This would push administrators to innovate to achieve those targets locally.

<sup>36</sup> <https://s3.ap-south-1.amazonaws.com/naps-cdn/naps-guidelines.pdf>

## Comprehensive, trade-wise, gender disaggregated data collection

To better understand what works for women when it comes to skill development, it is imperative to capture gender-disaggregated data at all levels of the training process. So far, MSDE has only captured data on the total number of women apprentices enrolled. Whereas it is equally important to capture gender disaggregated data on the average completion rates, number of apprentices enrolled by trade, recruited by establishments, enrolled in reskilling/upskilling, etc.<sup>37</sup> This would help analyse the distribution of opportunities under NAPS across industries and design appropriate interventions that could facilitate women's participation, wherever necessary. Additionally, the NAPS could also set a minimum number of partner firms with women leaders/mentors to be included on the platform as it will help motivate more women in these firms.

## Create opportunities for women in sunrise sectors

Identify sunrise sectors where state governments are already giving incentives to attract investments and link these incentives to creation of apprenticeship positions especially for women. For example, electric vehicles (EV) in Tamil Nadu and food processing in Uttar Pradesh are sectors where the governments are providing specific incentives to the industry; creating apprenticeship positions in these industries will lead to greater participation of women in sunrise industries.

## Create more apprenticeship opportunities in public sector

Many studies have shown that women and their families prefer public sector employment in the long term due to the social security it offers.<sup>38</sup> To make apprenticeship more attractive, central and state government public sector undertakings must create more apprenticeship opportunities. This might encourage more women to sign up for the scheme. According to the dashboard, currently only 37% of registered central govt PSUs and 39% state government registered PSUs are active establishments, indicating an untapped opportunity here.

## Encourage women friendly infrastructure/policies at partner firms

NAPS should encourage specific gender-inclusive intervention for women apprentices at participating establishments, especially in terms of infrastructure and ancillary support at the workplace. This would include functioning toilets, creche facilities, etc. These provisions will enable women to overcome some of the challenges they encounter when seeking apprenticeships and, therefore, increase female participation.

The scheme guidelines could include provisions which enhance safety at the workplace for women, mandate the inclusion of gender-friendly infrastructure, provide for orientation and counselling to female apprentices, and exhort partner firms to increase the number of female trainers to make young women comfortable at the workplace. Additionally, flexible working arrangements where possible can be provided to balance women's domestic obligations with work. Furthermore, NAPS should explore potential linkages with the Working Women's Hostels scheme as a means of provisioning safe accommodation for women to pursue apprenticeship opportunities in towns/cities other than their own. Lastly, provisions for safe and affordable transport should also be included in the scheme to enable women to commute from their place of residence to place of apprenticeship.

For instance, in Tanzania, Structured Engineers Apprenticeship Program (SEAP) provided female participants with subsistence allowances, additional training, and mentorship opportunities with follow-up after they achieved professional registration. The records show that female apprentices with funding and complementary support had a much higher completion rate (86%) than those who were self-supported (20%).

<sup>37</sup> According to a recent RTI, 27,9746 women apprentices had enrolled till Aug 2022, with the average qualification being "ITI Pass". However, in the same RTI, the Ministry of Skill Development and Entrepreneurship mentioned that any other gender disaggregated data is not captured.

<sup>38</sup> <https://publications.azimpremjuniuniversity.edu.in/4814/1/tnpsc-report-2.pdf> (pg 18)

## Integrate the NAPS into DESHStack

In skilling and vocational education, the Digital Ecosystem for Skilling and Livelihood (the DESHStack portal) is proposed to be launched with an aim to empower citizens to skill, reskill or upskill through training.<sup>39</sup> It will also provide API-based trusted skill credentials, payment, and discovery layers to find relevant jobs and entrepreneurial opportunities. In time, NAPS should be integrated onto the DESHStack portal to optimise apprenticeship training for women – this would enable female apprenticeship graduates to have a smoother transition into the labour market and employment opportunities.

Functionalities and features such as highlighting whether an Active Establishment has gender-friendly infrastructure, whether they provide flexible working arrangements, and provisions for matching female apprentices with female mentors should also be factored into the design and function of the DESHStack digital infrastructure. This will enable better matching of opportunities.

## Other recommendations to strengthen the overall ecosystem:

### Stronger convergence with education institutes and vocational skill training programs

Apprenticeships should not be treated as standalone activities. Instead, they should be integrated into a broader vocational skill development framework. Increased convergence with skilling programs like PMKVY, vocational educational training (VET) programs, and industrial training institute (ITI) programs, higher education institutes and school ecosystems could help create a placement pipeline for trainees, and drive demand for apprenticeship opportunities. In fact, apprenticeships could also be guaranteed after the completion of either 10<sup>th</sup> or 12<sup>th</sup> grade to provide early skill development opportunities. Industry collaborations with women-focused institutions can offer apprenticeships aligning industry needs with female apprentices' aspirations. Further, allocating a portion of apprenticeship slots for women and providing financial incentives to participating companies can drive gender diversity.

Further, degree apprenticeships can be leveraged to bridge the gap between academia and industry. Degree apprenticeships are a promising way to connect academia and industry. In India, they are gaining momentum and generating enthusiastic responses. These apprenticeships offer individuals the chance to earn a degree while gaining practical experience in their chosen field. The TeamLease Degree Apprenticeship Programme (TLDA) is the country's first and largest program of its kind, offering various courses and benefits to trainees. TLDA has enrolled over 6 lakh apprentices with 700 employers since 2014, providing attractive stipends and roles comparable to graduate apprenticeships. Overall, degree apprenticeships are becoming increasingly aspirational and cost-effective for employers, providing a bridge between education and work.<sup>40</sup> Scholarships and special incentives for women in degree apprenticeships alleviate entry barriers, while tailored programs in appealing sectors like tech and healthcare foster gender balance. Building support networks within degree apprenticeships can create a mentorship community, addressing women's unique challenges.

### Encourage market driven apprenticeship programs

To enhance women's representation in Industrial Training Institutes (ITIs), industry involvement at the ITI level is crucial. It has been observed that women are better represented in optional trades driven by the industry, as opposed to designated trades.<sup>41</sup> Therefore, aligning and updating ITI courses with industry demands is essential.

Successful Vocational Education and Training (VET) models worldwide are demand-driven, with the industry determining the required number of skilled individuals and specific trades. Employers should actively participate in curriculum design and candidate assessment to specify desired competency levels. Additionally, fostering a willingness to offer apprenticeships and internships to a larger pool of pre-employment trainees can promote inclusivity and prepare them with relevant skills for the workforce. Embracing this demand-driven approach in ITIs can empower women and create a more dynamic VET system for all trainees.

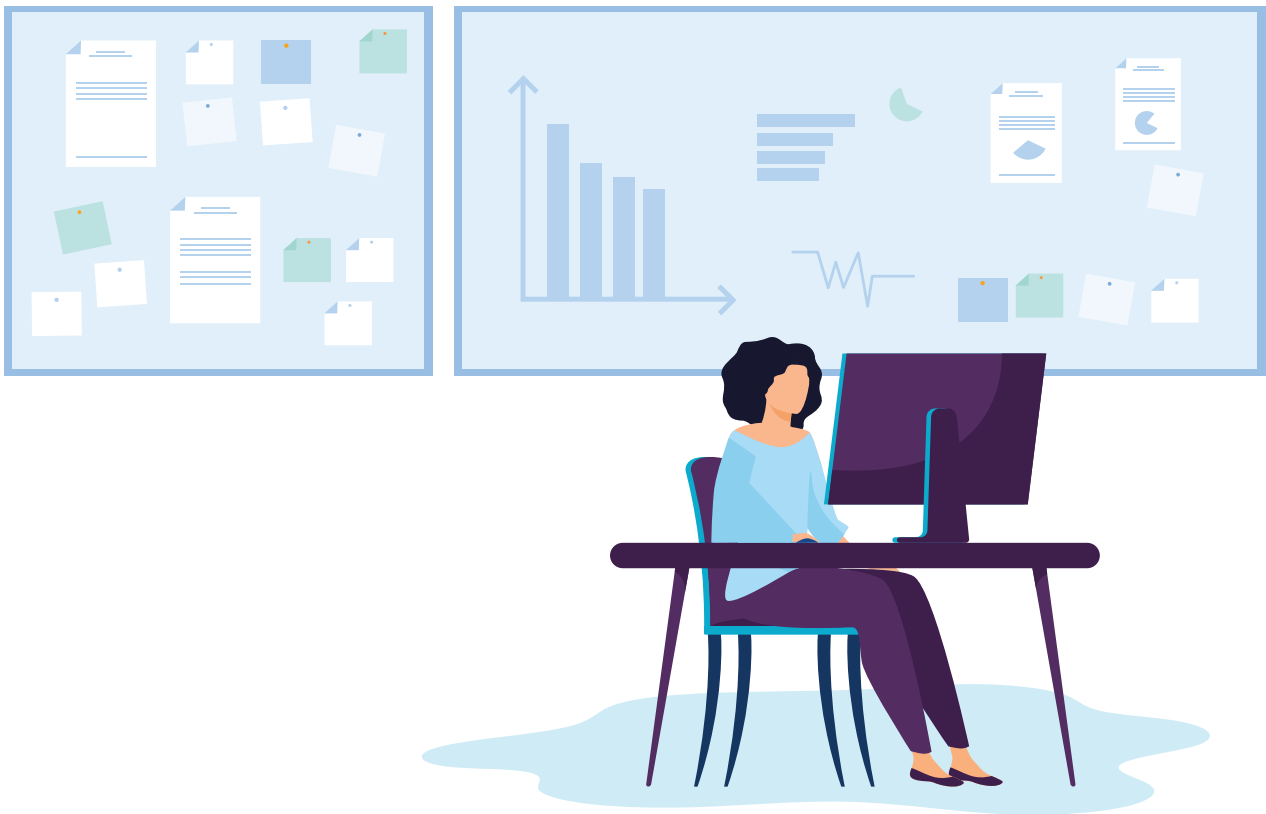
<sup>39</sup> <https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1794132>

<sup>40</sup> <https://degreeapprenticeship.teamlease.com/public/uploads/apprentice-outlook-report-jan-mar-2023-2-Apprenticeship%20Outlook%20Report-Jan-Mar-2023.pdf>

<sup>41</sup> <https://dashboard.apprenticeshipindia.org/landingSummary.do>

### Enhancing apprenticeship quality and oversight

To effectively monitor apprenticeships in India and prevent collusion while ensuring high quality, several measures can be implemented. The establishment of an independent regulatory body with a robust inspection and evaluation mechanism is essential to oversee apprenticeship programs. This body could conduct regular on-site visits to verify the implementation of training plans, assess the quality of training, and ensure compliance with program guidelines. A transparent reporting system that requires employers and training providers to submit progress reports, including apprentice attendance, skills acquired, and feedback from both employers and apprentices may also be instituted. Metrics such as retention in the same organisation or sector should be defined and tracked as metrics of success.



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The Quantum Hub (TQH) is a public policy research and communications firm based in New Delhi. Since its inception in 2017, TQH has worked on complex public policy challenges along the entire policy lifecycle from policy mapping and research to policy engagement with government stakeholders. TQH's multi-disciplinary team brings expertise on a range of rapidly evolving policy sectors including tech policy, education, social policy, property rights, gender, urban affairs among others.

# ABOUT THE SERIES



'Work' — as we know it — is shifting. Increasingly, there are a host of factors that are changing the landscape of employment, from skilling outcomes and sector-specific job creation to fertility rates and family sizes. Estimates from McKinsey & Co. suggest that globally, between 40 million and 160 million women may need to transition between occupations by 2030, into higher-skilled roles. Further, it is predicted that nearly 12 million Indian women could be staring at job losses owing to automation.

Against this backdrop, what might work to keep women in India's workforce as we face down an increasingly contentious future of work? Using secondary research, and interviews with stakeholders, the briefs in this series highlight gender responsive principles for different thematic areas that can enable and harness women's workforce participation.

# Annexure

## Differences between NAPS and NATS

Sl. No.	Parameter	NATS	NAPS
1	Ministry	Department of Higher Education, Ministry of Education	MSDE
2	Budget Allocation	Rs. 175 Cr (2020-21) Rs. 500 Cr (2021-22) Rs. 550 Cr (2022-23) Rs. 440 Cr (2023-24)	Rs. 73 Cr (2020-21) Rs. 120 Cr (2021-22) Rs. 170 Cr (2022-23) NAPS is now under the composite Skill India Scheme, which has been allocated Rs. 2278.37 crores for 2023-24. Skill India also includes PMKVY 4.0 and JSS
3	Year of inception	1973	2016
4	Apprentice eligibility	Graduate in engineering/technology/ (all 4 year professional courses)  Diploma in engineering/ technology (all 3 year professional courses)  (Those pursuing sandwich pattern of education where one extra year is added specifically for industrial training)	School dropouts (Class 5-9) School pass-outs (10th/12th)  National or State Technical Certificate Holder (ITI) Technician (vocational) apprentice (12th vocational)
5	Training Content	Industry based training module but not mapped with course curriculum	Training is implemented as per the approved curriculum mapped to some course
6	Duration of Eligibility post qualification	A candidate can apply up to 3 years of eligible qualification (currently, class of 2020 is the oldest eligible batch)	None
7	Certifying agency	Certificate of proficiency issued by Ministry of Education, GoI through Boards of Apprenticeship Training (BOAT)	For designated trades: National Apprenticeship Certificate (NAC) issued by DGT under MSDE for designated trades
8	Apprentice eligibility	Employer does the assessment	For designated trade: Assessment by DGT  For optional trade: Employer alone or Employer + Sector Skill Council (SSC)
9	Placement tracking mechanism	Well defined online mechanism of placement tracking	None
10	Stipend reimbursement mechanism	Online	Offline and online
11	Trades	163 trades	Designated Trades: 266 trades Optional Trades: 400 + trades



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