Reducing Unemployment in India A Research-Based Analysis of Structural Problems and Evidence-Backed Solutions

Sripad

Mechanical Engineering Graduate | UPSC Aspirant | Pursuing Master's in Sociology Drawing on Official Indian Labour-Market Data (PLFS, Mospi), Peer-Reviewed and Institutional Research, And Comparative International Evidence

Abstract—**India's labour market presents an apparent paradox: a low headline unemployment rate sits alongside an acute crisis of graduate joblessness, weak formal-sector job creation despite strong GDP growth, and a female workforce whose rising participation appears driven substantially by economic distress rather than opportunity. This paper synthesizes official labour-force data (the Periodic Labour Force Survey, 2025-26), institutional and academic research — including the Azim Premji University State of Working India 2026 report, evaluations of MGNREGA and Skill India, and a J-PAL field experiment — and comparative international evidence from Germany, South Korea, Taiwan, Bangladesh, and Vietnam to diagnose the structural roots of India's unemployment problem and propose a phased, fiscally realistic set of solutions.**

Four root causes are identified: stagnant manufacturing employment despite decades of GDP growth ("jobless growth"); a severe education–industry skills mismatch that concentrates joblessness among the educated rather than the illiterate; chronic credit starvation in the MSME sector that employs the largest share of India's non-farm workforce; and a rural economy that continues to absorb surplus and distress-driven labour, particularly among women, rather than releasing it into higher-productivity work. Drawing on evaluations of MGNREGA, PMKVY/Skill India, the Production-Linked Incentive (PLI) scheme, Startup India, and the newly implemented Four Labour Codes (2025), alongside international lessons on vocational training, export-led industrialization, and experimentally verified drivers of female labour supply, the paper proposes a sequenced roadmap: low-cost near-term reforms; medium-term structural shifts; and a long-term commitment to raising manufacturing's employment share and treating labour intensive public services as a legitimate jobs engine.

I. INTRODUCTION

India's population is at its most economically potent moment in generations. Its median age remains under 29, and the country is approaching the peak of a demographic dividend window that will begin closing after 2030, as the youth share of the population declines from roughly 27 percent in 2021 to about 23 percent by 2036. Yet this dividend is not converting automatically into an employment dividend. GDP growth has stayed strong — provisional estimates put FY 2025-26 growth at around 7.4 percent — but the ratio of new jobs to that growth has been persistently weak by historical and international standards.

The result is a labour market that looks calm on the surface, with headline unemployment hovering between three and five percent on official measures, while concealing a much sharper crisis just beneath it: graduate unemployment running at three to four times the national average, only a small fraction of young male graduates securing a stable salaried job within a year of finishing their degree, and tens of thousands of overqualified applicants competing for menial government posts.

This paper sets out to do three things. First, it lays out what the best available Indian and international data currently say about the nature of India's unemployment problem — not just the headline rate, but its composition by education, gender, sector, and geography. Second, it grounds that diagnosis in established economic research: structural-transformation theory, the concept of employment elasticity, and recent behavioural and experimental

economics on labour markets and the "queuing" behaviour of educated jobseekers. Third, it evaluates what India has already tried — MGNREGA, Skill India, the PLI scheme, Startup India, and the newly implemented labour codes — against the evidence, and draws on international case studies and a randomized field experiment on women's work to propose interventions that are realistic given India's current fiscal and political constraints.

II. THE CURRENT STATE OF UNEMPLOYMENT IN INDIA: DATA AND EVIDENCE

2.1. Headline Numbers and Their Limits

The Periodic Labour Force Survey (PLFS), India's official labour-market survey run by the Ministry of Statistics and Programme Implementation (MoSPI), reported an overall unemployment rate of 5.2 percent for persons aged 15 and above in April 2026 on its Current Weekly Status (CWS) measure, up marginally from 5.1 percent a year earlier. Urban unemployment stood at 6.6 percent and rural unemployment at 4.6 percent; female unemployment (5.4 percent) ran slightly above male unemployment (5.1 percent). Labour force participation eased to 55.0 percent.

These CWS figures sit awkwardly alongside PLFS's annual Usual Status measure for July 2024–June 2025, which put overall unemployment at just 3.2 percent (2.5 percent rural, 5.1 percent urban). The gap matters: Usual Status classifies someone as employed if they worked for the greater part of a full year, even intermittently, which smooths over the reality of workers cycling between casual work and active job search. The Current Weekly Status measure, capturing only the preceding seven days, is more sensitive to short-run churn and generally yields a higher, arguably more realistic, unemployment reading. This methodological gap is a large part of why India's often-cited "3 percent" unemployment rate coexists with a very different lived reality for millions of jobseekers.

2.2. The Educated Unemployment Paradox

Despite an official unemployment rate in the three-to-six percent band, the burden of joblessness falls overwhelmingly on the educated. Graduates face an unemployment rate of roughly 11.2 percent — more than three times the national average — with rural graduates faring worse (11.8 percent) than urban graduates (10.6 percent); postgraduates see about 10 percent, while those with only secondary schooling see roughly 6.5 percent. Roughly two-thirds of India's officially unemployed hold a graduate or postgraduate degree.

The Azim Premji University State of Working India 2026 report sharpens this picture considerably. Unemployment among graduates aged 15–25 approaches 40 percent, and among 25–29-year-olds it is roughly 20 percent. Fewer than 7 percent of young male graduates secure a permanent salaried job within a year of first reporting as jobseekers, and only 3.7 percent land a white-collar position. In 2023, about 67 percent of India's unemployed youth aged 20–29 held a degree — more than double the 32 percent share in 2004 — even as the absolute number of unemployed graduates rose from roughly 30 lakh to 1.1 crore over that period.

The extremes illustrate the scale of the mismatch: in 2024, more than 46,000 graduates and postgraduates applied for sanitation-worker positions in Haryana, and roughly 12,000 professionals competed for just 18 peon posts in Rajasthan; that same year, two out of every five IIT graduates went unplaced. The India Skills Report 2025 found overall graduate employability at only about 55 percent nationally, ranging from 71 percent for MBA graduates down to 45 percent for Bachelor of Arts graduates — evidence of a steep and uneven skills gradient across degree types.

2.3. The Gender Dimension

Female labour force participation has risen sharply on paper — from 23.3 percent in 2017-18 to roughly 40–42 percent by 2023-24 on the annual Usual Status measure — a trend the government's Economic Survey 2026 projects could reach 55 percent by 2050. But the underlying composition raises real questions about whether this reflects empowerment or distress. Nearly all of the increase has come from rural women, driven substantially into unpaid family labour and "own-account" self-employment rather than salaried work; the share of rural women working in agriculture actually rose from 71.1 percent to 76.9 percent between 2018-19 and 2023-24 — a reversal of the structural transformation typically expected as economies develop.

Women also continue to carry a large unpaid-work burden — 363 minutes a day on average, versus 123 minutes for men — and remain a minority (about 28 percent) of India's gig and platform workforce. The Current Weekly Status monthly data for early 2026 show female labour force participation closer to 34 percent, with urban female participation at only about 25 percent, underscoring that formal, urban employment remains largely inaccessible to women even as village-level participation climbs.

2.4. Jobless Growth and Employment Elasticity

Economists gauge how much employment growth accompanies a given amount of GDP growth using "employment elasticity." Estimates vary considerably by period and methodology: some studies find elasticity collapsed from about 0.26 in 2000–2012 to near zero by 2019, while other analyses using post-pandemic recovery data report a rebound to elasticity above 1.0 between 2017 and 2023. This disagreement partly reflects definitional differences — formal versus total employment, whether self-employment is counted — and partly reflects genuine volatility across a short and unusual post-pandemic period.

What is not disputed is that manufacturing's own employment elasticity remains below 0.5, well under the 0.7-plus seen during East Asia's fast-growth decades, and that manufacturing's employment share (about 12 percent of the workforce) has been essentially flat since the 1991 liberalization even as its GDP share has held around 14–17 percent. This is the empirical core of what Indian economists call "jobless growth": the economy is producing more output, and even creating some jobs, but not at the pace or in the formal, well-paid categories a workforce of India's scale requires.

III. THEORETICAL FOUNDATIONS

3.1. Structural Transformation and the Lewis Model

The classical starting point for analyzing developing-country unemployment is Arthur Lewis's 1954 dual-sector model of economic development, which describes growth as the gradual movement of "surplus" labour out of low-productivity agriculture into a higher-productivity modern, industrial sector — a transition that, in successful cases, steadily raises average incomes and narrows underemployment. India's structural transformation has been unusual by this yardstick: it has moved workers from agriculture toward services largely without an intervening mass-manufacturing phase, the route historically taken by Britain, the East Asian Tigers, and China. Agriculture still absorbs the majority of rural workers — 57.7 percent of rural employment, per the government's own Economic Survey 2026 — and continues to function as an employer of last resort: precisely the "surplus labour" reservoir Lewis described, except that in India's case that reservoir has, in recent years, been refilling rather than draining, particularly for women.

3.2. Employment Elasticity as a Policy Lens

Building on the Lewis framework, employment-elasticity analysis offers a practical policy lens: it asks not merely whether GDP is growing, but whether the composition of that growth — which sectors, which technologies, which firm sizes — is generating proportionate jobs. Capital-intensive, automation-heavy growth (large-scale manufacturing, IT services) raises output per worker without necessarily raising the number of workers; labour-intensive growth (construction, MSMEs, agro-processing, apparel) does the opposite. This distinction underpins several of this paper's later recommendations, particularly the call to re-weight the PLI scheme toward employment outcomes rather than investment volume alone.

3.3. Banerjee and Duflo: Transitions, Queuing, and Labour-Intensive Public Services

Nobel laureates Abhijit Banerjee and Esther Duflo's Good Economics for Hard Times (2019) offers three ideas directly relevant to India. First, drawing on research into India's 1991 trade liberalization, they show that districts more exposed to import competition experienced slower poverty reduction for years afterward — labour does not reallocate quickly or costlessly across sectors and regions the way textbook trade theory assumes; workers are far less mobile, and adjustment is slower and more painful, than standard models predict. This matters directly for India's manufacturing strategy: opening a sector to competition or investment does not by itself guarantee that displaced or first-time workers land smoothly in the new jobs created.

Second, they document that people who lose jobs, especially later in their careers, suffer measurable

harm to wellbeing, arguing that job loss is a societal risk to be insured against collectively rather than treated as an individual failing — a framing relevant to India's still-thin unemployment insurance and severance systems.

Third, and most directly applicable to India's graduate-unemployment paradox, is what economists call "queuing": educated jobseekers in developing labour markets rationally wait for scarce formal-sector jobs matching their qualifications rather than immediately accepting available manual or informal work, because the wage and status premium of formal employment is large enough to justify a long search. This is consistent with India's data — educated youth are not workshy; they are queuing for a limited number of formal jobs relative to the number of degree-holders competing for them, which is why unemployment concentrates among the credentialed rather than the illiterate. Banerjee and Duflo's policy response — investment in labor-intensive public services such as early-childhood care, eldercare, and community health work, which are inherently place-bound and cannot be automated or offshored — recurs in this paper's long-term recommendations.

IV. DIAGNOSING INDIA'S STRUCTURAL PROBLEMS

4.1. Manufacturing Has Not Absorbed Labour

Manufacturing's GDP share (14–17 percent) and employment share (about 12 percent) have moved apart, not together, since liberalization. The Production-Linked Incentive (PLI) scheme, launched in 2020 and expanded to 14 sectors with a combined outlay of roughly ₹1.97 lakh crore, aimed to create around 6 million jobs over five years from 2021-22 — modest relative to the several million new labour-force entrants India adds each year. Because PLI incentives are calculated as a share of incremental investment rather than incremental employment, firms are rewarded for capital deployment — often automation-heavy — rather than headcount, a structural design gap for a scheme meant to move the needle on jobs.

4.2. Education–Industry Mismatch

About a third of graduates cite skills misaligned with industry needs as a barrier to employment. The India Skills Report's gap between MBA employability (71 percent) and Bachelor of Arts employability (45 percent), the collapse in campus placements even at premier institutes such as the IITs, and weak industry-academia linkages all point to the same underlying failure: curricula set largely in isolation from the employers who will eventually hire (or not hire) their graduates. The counter-intuitive PLFS finding that unemployment rises with educational attainment — peaking among those with secondary-and-above education — is not evidence that education is worthless; it reflects the queuing phenomenon described in Section 3.3, in which educated jobseekers hold out for scarce formal jobs rather than immediately taking available informal work.

4.3. MSME Credit Starvation

Micro, Small, and Medium Enterprises contribute close to 30 percent of India's GDP and nearly half of its exports, and by various estimates are collectively India's largest employer after agriculture. Yet independent studies — from SIDBI-CRISIL, the RBI's U.K. Sinha Committee, and NITI Aayog — place India's unmet MSME credit demand somewhere between ₹20 and ₹30 lakh crore, with only 14–20 percent of MSMEs enjoying formal credit access. The shortfall is worse for rural enterprises (a 32 percent credit gap versus 20 percent in urban areas) and worse still for women-led businesses (a 35 percent addressable gap). This financing constraint caps the ability of exactly the firms with the highest labour-intensity to expand and hire, pushing small entrepreneurs toward costlier informal credit that limits growth. NITI Aayog data do show gradual improvement — formal credit access for micro and small enterprises rose from 14 percent to 20 percent between 2020 and 2024 — but a very large unmet gap persists.

4.4. Informality and the Rural Distress Cushion

Agriculture still accounts for 57.7 percent of rural employment, and self-employment for 62.8 percent; unpaid family labour and "own-account" work have absorbed much of the recent rise in female participation rather than salaried employment. Researchers characterize this as "distress-driven" entry — a response to inflation and the need to supplement household income — rather than a

genuine expansion of opportunity. This matters for policy: a rising female labour-force participation rate is not, on its own, evidence of progress if the underlying work is unpaid or precarious. Policymakers need to track job quality alongside participation.

4.5. Regulatory Legacy and the New Labour Codes

For most of independent India's history, labour regulation was governed by 29 separate, overlapping laws, some dating to the 1930s–1950s, long identified by employer surveys as a source of compliance complexity that discouraged formal hiring, particularly past headcount thresholds that triggered stricter retrenchment rules. On 21 November 2025, the government brought into force Four Labour Codes — covering Wages, Industrial Relations, Social Security, and Occupational Safety, Health and Working Conditions — consolidating those 29 laws.

Key changes include a national floor wage, mandatory appointment letters, single registration, licence, and return processes, the first-ever extension of social-security coverage to gig and platform workers, and a rise in the employee threshold that triggers government approval for lay-offs and retrenchment, from 100 to 300 workers, giving mid-sized firms more flexibility to adjust headcount. Reported social-security coverage overall expanded from about 19 percent of workers in 2015 to roughly 64 percent by 2025. This is the most significant reset of India's labour regulatory architecture in decades, but its employment impact will depend heavily on state-level rule notification (many states have yet to finalize their own rules), MSME capacity to absorb near-term compliance costs — particularly a redefinition of “wages” that raises Provident Fund and gratuity contributions — and whether enforcement genuinely reaches gig, migrant, and informal workers rather than remaining confined to the formal sector on paper.

V. EVALUATING INDIA'S CURRENT INTERVENTIONS: WHAT THE EVIDENCE SHOWS

5.1. MGNREGA

The Mahatma Gandhi National Rural Employment Guarantee Act is the world's largest employment guarantee, entitling every rural household to 100 days of guaranteed unskilled manual work annually. Longitudinal research using the India Human Development Survey across more than 1,400 villages in 29 states finds that MGNREGA participation is associated with significant poverty alleviation, higher household consumption, and reduced community-level income inequality. Separate research finds the scheme reduces distress-driven seasonal out-migration, particularly benefiting women who prefer safer, local work over riskier urban informal-sector jobs.

However, a systematic review of the evidence base by 3ie (the International Initiative for Impact Evaluation) found a striking paucity of rigorous impact evaluations relative to the scheme's scale, with evidence concentrated in only a few states; payment delays and inconsistent tracking of households across survey rounds continue to limit both programme effectiveness and researchers' ability to study it. MGNREGA's core limitation for the unemployment problem discussed in this paper is structural rather than administrative: it is designed to provide unskilled manual work as a safety net, not a pathway into skilled, formal, or urban employment. It treats a symptom of rural distress rather than building the higher-productivity non-farm jobs India's structural transformation requires.

5.2. Skill India / PMKVY

Since 2015, the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) has certified over 1.37–1.42 crore individuals in short-term skill training. Placement outcomes, however, have consistently trailed certification volume: one state-level comparative study found PMKVY graduates' employability lagging far behind older, more established Industrial Training Institutes (35.7 percent versus 6.6 percent in one assessment), while other analyses put PMKVY placement rates around 20–25 percent of those trained. Researchers attribute the gap to outdated curricula that lag shifting industry demand, minimal private-sector involvement in designing training content, uneven regional access — particularly in rural areas — and weak tracking of where trainees actually end up. PMKVY 4.0, which shifts content toward AI, robotics, IoT, and drone technology and moves explicitly toward outcome-based rather than enrolment-based metrics, is a course correction consistent with the evidence — but implementation

quality, not design intent, has historically been the bottleneck.

5.3. PLI Scheme and Make in India

The PLI scheme has succeeded in anchoring large manufacturers — including global electronics assemblers such as Foxconn, Pegatron, and Tata Electronics — inside India's mobile-phone supply chain, and manufacturing growth has recently been robust, around 9.9 percent in some recent quarters. But its original ambition of roughly 6 million jobs over five years appears to have fallen well short given the scheme's bias toward capital-intensive, automation-heavy production in several sectors. Because MSMEs — which are considerably more labour-intensive — already contribute nearly a third of GDP and close to half of exports, several labour economists argue the PLI's job-creation potential could be substantially improved by explicitly rewarding employment intensity alongside capital investment.

5.4. Startup India

This is a genuine, if geographically concentrated, success story. Recognized startups under the DPIIT programme grew from around 350 in 2016 to more than 2.23 lakh by March 2026, generating a reported 23.36 lakh direct jobs, with job creation growing 36.1 percent year-on-year in FY 2025-26 alone. Nearly half of recognized startups now report at least one-woman director or partner. The scheme demonstrates that entrepreneurship-support policy — seed funding, credit guarantees, simplified compliance, public e-marketplace access — can meaningfully expand formal employment, though its job volume remains a small fraction of the labour force India adds each year, and startup activity remains heavily concentrated in a handful of metro hubs even as tier-2 and tier-3 cities show emerging momentum.

5.5. The Four Labour Codes (2025)

Too new to evaluate on outcomes, the codes' design logic — formalizing gig and platform work, extending social security, simplifying multi-state compliance — is consistent with the evidence on what has held back MSME hiring and informal-sector protection. The near-term risk several analysts have flagged is a rise in effective labour costs for MSMEs, via the new minimum “basic wage” definition, that could push some employers toward leaner headcounts or greater automation unless paired with active compliance support — precisely the kind of costly transition Banerjee and Duflo's research would predict, and the reason Section 7.1 recommends pairing the codes' rollout with targeted MSME assistance.

Table 1. Selected government employment interventions — evidence summary

Programme	Scale	Documented Strength	Documented Limitation
MGNREGA	World's largest employment guarantee; 100 days/year per rural household	Reduces poverty and inequality (IHDS-based study); curbs distress migration	Provides only unskilled manual work; sparse rigorous evaluation outside a few states
PMKVY / Skill India	1.37–1.42 crore trained since 2015	Expanded skilling access nationwide	Placement rates ~20–25%; weak industry alignment vs. ITIs
PLI Scheme	14 sectors; ~₹1.97 lakh crore outlay	Anchored major electronics manufacturers (Foxconn, Tata Electronics)	Rewards capital investment, not jobs; below original job target
Startup India	2.23 lakh recognized startups (Mar 2026)	23.36 lakh direct jobs; 36% YoY job growth in FY26	Concentrated in metro hubs; small share of annual labour-force entrants
Four Labour Codes	Replaces 29 laws; in force since Nov 2025	Extends social security to gig workers; simplifies compliance	Raises near-term MSME costs; state-level rules still pending

VI. INTERNATIONAL EVIDENCE: FOUR CASE STUDIES

6.1. Germany's Dual Vocational Training System

Roughly half of German school leavers enter the dual vocational system, spending three to four days a week training inside a firm and the remainder at a vocational college, over a two-to-three-year apprenticeship; about 400,000 companies participate, and roughly 74 percent of apprentices receive an

employment contract on completion. The system is closely associated with Europe's lowest youth unemployment rate, around 5.7–5.8 percent. Its key institutional feature is that chambers of commerce and industry bodies co-design curricula and jointly certify quality with the state, so training content is set by the employers who will eventually hire the graduates — not by government or academia in isolation.

An important caveat: attempts to export the German dual model wholesale to other countries have had disappointing long-term results, largely because the system depends on decades of institutional trust between firms, unions, and chambers of commerce that cannot be replicated simply by copying curricula. The transferable lesson for India is therefore not the specific German bureaucratic structure, but the underlying principle — employer-embedded apprenticeship training with joint industry-government curriculum design and a clear route into employment — adapted to India's own sector skill councils rather than imported wholesale.

6.2. South Korea and Taiwan: State-Directed, Export-Led Industrialization

In the 1960s and 1970s, both economies — starting from a GDP per capita lower than several African and Latin American countries at the time — pursued deliberately labor-intensive, export-oriented industrialization in textiles, footwear, and electronics assembly, coordinated through five-year plans, subsidized credit, and tax incentives directed at targeted export sectors, before graduating over subsequent decades into more capital-and technology-intensive production. Growth averaged roughly 7.5 percent annually for three decades. Development economists studying this period attribute the outcome to a state that acted as an active coordinator and disciplinarian of private investment, rather than either a pure central planner or a purely hands-off regulator.

The lesson for India is one of sequencing: labor-intensive, lower-skill manufacturing was the first rung of the ladder, not a stage to be bypassed, and government played a coordinating — not merely deregulating — role in directing capital and export incentives toward employment-dense sectors.

6.3. Bangladesh and Vietnam: Labour-Intensive Manufacturing at Scale

Bangladesh's ready-made garment sector, employing roughly 4 million people (a majority of them women) and accounting for about 80 percent of the country's exports, shows how a single labor-intensive sector can become a mass employer for a large, moderately-skilled population when paired with supportive trade-finance instruments — such as back-to-back letters of credit and bonded warehousing — and consistent government backing. Vietnam initially followed a similar labor-intensive path but has since moved up the value chain into electronics manufacturing by combining continued openness to foreign direct investment with sustained workforce upskilling.

A 2026 comparative study by the Indian Council for Research on International Economic Relations (ICRIER) on apparel competitiveness across China, Bangladesh, and Vietnam finds that India's cost of capital for exporters is markedly higher than all three competitors, and recommends a coordinated push across five pillars — manufacturing scale, cost of capital, workforce skilling, trade facilitation, and institutional coordination — if India is to grow apparel exports from about $15.7 billion toward a targeted $40 billion by 2030 and meaningfully raise its roughly 3 percent global market share. Because apparel and adjacent labor-intensive sectors — leather, footwear, toys — have some of the highest employment-per-rupee-invested ratios in manufacturing, this is among the most directly actionable international lessons for India's near-term jobs strategy.

6.4. A Randomized Trial on Female Labour Force Participation (J-PAL, West Bengal)

A rigorous randomized evaluation conducted in rural, peri-urban, and urban Kolkata — an area with historically very low female labour force participation — tested whether access to flexible, internet-mediated gig work could draw previously non-working women into paid employment. Sixty-nine percent of study participants had never previously worked for pay, and only 36 percent reported having the final say over whether they could take a paid job. The experimental design allows more confident causal conclusions than most labour-market research, and its findings are directly relevant to India's present situation: where women's rising

labour-force participation has come disproportionately through unpaid or distress-driven channels, flexible, safe, internet-mediated work arrangements are a mechanism experimentally shown to convert latent willingness to work into actual paid employment, particularly where mobility, safety, and household permission are binding constraints.

Table 2. International case studies at a glance

Country / Study	Core Mechanism	Outcome	Transferable Lesson for India
Germany	Employer-embedded dual apprenticeship, jointly designed by chambers of commerce and the state	Youth unemployment ~5.7%, lowest in the EU	Adopt the design principle (employer co-owned curricula) via India's own sector skill councils, not the exact institutional form
South Korea / Taiwan	State-coordinated, export-oriented industrial policy starting with labor-intensive sectors	~7.5%/year growth for three decades; graduated to high-value manufacturing	Sequence labor-intensive manufacturing first; government as active coordinator of capital toward employment-dense export sectors
Bangladesh	Ready-made garment sector as mass employer via trade-finance support and FDI incentives	~4 million jobs; ~80% of national exports	Government-backed trade-finance instruments can offset high domestic capital costs
Vietnam	Openness to FDI combined with sustained workforce upskilling	Graduated from garments into electronics manufacturing	Manufacturing strategy needs an explicit upgrade path, not just entry-level assembly
J-PAL (Kolkata)	Flexible, internet-mediated gig work	Increased paid work among women with no prior work history	Flexible, safe work formats can convert latent female labour supply into paid participation

VII. RESEARCH-BACKED RECOMMENDATIONS FOR INDIA

The recommendations below are organized by time horizon and, deliberately, by fiscal cost — starting with reforms that primarily redesign or better target money India already spends, before turning to larger multi-year commitments.

7.1. Immediate, Low-Cost Actions (0–2 years)

7.1.1. Make skilling funding outcome-based, not enrolment-based. Redirect PMKVY disbursement toward verified placement and six-month retention rather than certificates issued — the metric that evaluations show actually varies, rather than training volume, which does not.

7.1.2. Sharply expand apprenticeships (NAPS) rather than classroom-only courses. Apprenticeships embed trainees directly inside a hiring firm from day one — the core insight from Germany's dual system — and cost less per trainee than building new training infrastructure. India's roughly 32 lakh apprentices remain a small fraction of its youth cohort and can be scaled through expanded employer stipend-sharing.

7.1.3. Pair the Four Labour Codes rollout with active MSME compliance support. Subsidized digital payroll and compliance tools, a transition grace period on the new wage-definition cost increase for smaller firms, and rapid state-level rule notification can prevent the codes from triggering the "leaner hiring" response several analysts have already flagged as a risk.

7.1.4. Close the MSME credit gap using cash-flow-based underwriting. Expand credit-guarantee coverage, building on the existing Credit Guarantee Scheme for Startups and similar mechanisms, using GST and UPI transaction data as an alternative to collateral — targeting the sectors NITI Aayog identifies as priorities (textiles, auto components, food processing), where credit access has already begun rising but remains far below unmet demand.

7.1.5. Mandate placement-outcome transparency in higher education. Publish verified, third-party-audited placement and starting-salary data for engineering colleges, business schools, and universities — rather than self-

reported figures — correcting the information asymmetry that keeps students enrolling in low-employability programmes.

7.2. Medium-Term Structural Reforms (2–5 years)

7.2.1. Re-weight the PLI scheme toward employment intensity. Recalibrate incentive formulas to reward incremental jobs alongside incremental investment, and prioritize PLI sectors with historically higher employment elasticity — textiles, leather, food processing — rather than only the most capital-intensive.

7.2.2. Launch a coordinated labor-intensive export push in apparel, leather, footwear, and toys. Following the ICRIER five-pillar framework: reduce exporters' cost of capital through targeted export-credit and interest-subvention schemes, invest in shared industrial infrastructure such as plug-and-play parks, streamline trade facilitation, and build coordinating institutions comparable to those used in Bangladesh and Vietnam — a feasible target given India's existing $15.7 billion apparel export base and the identified goal of reaching $40 billion by 2030.

7.2.3. Invest in care infrastructure and safe mobility for women. Publicly funded childcare centres, safe last-mile public transport, and genuine enforcement — not just legal recognition — of the new Social Security Code's gig-worker provisions, informed directly by the J-PAL Kolkata finding that flexible, safe work arrangements convert latent willingness to work into actual paid employment.

7.2.4. Build an apprenticeship-first pathway into engineering and polytechnic diplomas. Require a substantial, credit-bearing industry-placement component before graduation, directly responding to evidence that curriculum-only training underperforms employer-embedded training on placement outcomes.

7.3. Long-Term Structural Transformation (5–10+ years)

7.3.1. Set and track an explicit manufacturing employment-share target. Aim to raise the current ~12% toward the 18–20% range seen in more industrialized emerging economies, using the East Asian sequencing lesson: build labor-intensive manufacturing capacity first, then graduate into higher-value production.

7.3.2. Treat labor-intensive public services as a legitimate, budgeted jobs sector. Early-childhood education, community health workers, and eldercare are sectors resistant to both automation and offshoring, and they also directly address the care-infrastructure gap constraining women's paid work— a rare case where a jobs intervention and a gender-equity intervention reinforce each other.

7.3.3. Build rural non-farm absorptive capacity deliberately. Rather than relying on agriculture or MGNREGA as a default cushion, invest in agro-processing, rural logistics, and small-town services to offer a genuine “third pathway” for the more than half of India's rural workforce still dependent on agriculture.

7.3.4. Institutionalize employment-elasticity accounting in policy appraisal. Require major infrastructure and industrial-policy proposals above a set fiscal threshold to report projected direct and indirect employment impact per rupee invested, alongside conventional growth and revenue projections, so job creation becomes an explicit, measured criterion rather than an assumed byproduct of growth.

VIII. IMPLEMENTATION ROADMAP AND FISCAL FEASIBILITY

Given the fiscal constraints India operates under, the sequencing above is deliberately built around cost-effectiveness. Near-term recommendations — outcome-based skilling funding, apprenticeship expansion, credit-guarantee mechanisms built on existing data infrastructure, and labour-code implementation support— primarily reallocate or better target existing budget lines (PMKVY, credit-guarantee schemes, Startup India) rather than requiring large new fiscal outlays, and can largely proceed through administrative and executive action

within current schemes.

Medium-term recommendations — the apparel and labor-intensive export push, care-infrastructure investment, and PLI recalibration — require larger multi-year fiscal commitments, but can draw on the same public-private co-financing model already used in the PLI and Startup India schemes, and are justified by the comparatively high employment-per-rupee return that labor-intensive sectors demonstrate relative to capital-intensive alternatives.

Long-term structural goals — raising manufacturing's employment share and institutionalizing employment-elasticity accounting — are properly multi-decade commitments requiring sustained political consensus across election cycles, similar to South Korea's and Taiwan's multi-decade industrial strategies, and are unlikely to show results within a single budget cycle. Policymakers and the public should be prepared for that reality rather than expecting rapid results from any single scheme.

Table 3. Roadmap summary

Timeframe	Key Actions	Primary Fiscal Mechanism	Evidence Base
0–2 years	Outcome-based PMKVY funding; NAPS apprenticeship expansion; MSME credit guarantees via alternative-data underwriting; Labour Code MSME transition support; placement-data transparency mandate	Reallocation of existing scheme budgets; administrative/executive action	PMKVY placement studies; ITI vs. PMKVY comparisons; MSME credit-gap reports; Labour Code analyses
2–5 years	Employment-weighted PLI; apparel and labour-intensive export push (ICRIER five-pillar framework); care-infrastructure and safe-mobility investment; industry-placement-linked engineering curricula	Multi-year budget allocation; public-private co-financing (PLI model)	ICRIER apparel study; J-PAL Kolkata randomized evaluation; PLI design critiques
5–10+ years	Manufacturing employment-share target; labor-intensive public-services jobs sector; rural non-farm capacity building; employment-elasticity accounting in policy appraisal	Sustained multi-decade fiscal and institutional commitment	East Asian Tiger case studies; Banerjee & Duflo (2019); Lewis (1954) structural-transformation theory

IX. CONCLUSION

India's unemployment challenge is not a single problem with a single fix; it is at least four distinct problems sharing one headline number — jobless growth in capital-intensive manufacturing, an education system producing graduates faster than the formal economy can absorb them, an MSME sector starved of the credit it needs to hire, and a rural economy, especially for women, that continues to absorb labour rather than release it into higher-productivity work.

The evidence assembled here — from India's own PLFS and State of Working India data, from evaluations of MGNREGA, PMKVY, the PLI scheme, and Startup India, and from Germany's, South Korea's, Bangladesh's, and Vietnam's very different paths to mass employment — points toward a coherent, if unglamorous, strategy: fix the incentive design of existing schemes before launching new

ones; prioritize labor-intensive sectors and employer-embedded training over capital-intensive or classroom-only alternatives; treat credit access and care infrastructure as employment policy rather than separate financial-inclusion or welfare issues; and measure job creation explicitly rather than assuming it follows automatically from GDP growth.

None of this guarantees an immediate reversal of India's graduate-unemployment crisis; the international evidence, particularly Germany's and Korea's multi-decade institution-building, suggests durable results take years, not budget cycles. But it does offer a fiscally realistic, evidence-grounded path — one that starts by better targeting the resources India already commits across the PLI scheme, Skill India, and related programmes before asking for more, and that treats India's demographic dividend as a closing window current policy has, at best, only partially begun to open.

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