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# Youth and Skill Development in Uttarakhand

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**Abstract:** *Youth unemployment is a serious economic and social issue in Uttarakhand. Unemployment among youth is around 20 per cent compared to all India average of 15 per cent. Joblessness among educated youth is quite acute – around 40% of the graduates are unemployed.*

*The incidence of unemployment is disproportionately higher in the hill districts compared to the three plain districts. Joblessness is a major trigger for out migration from hills to the plains of India.*

*This paper shows that the current design, delivery, and diffusion of vocational skill among youth has only partially succeeded in engaging and absorbing youth within the State's economy. To improve employability of youth, major changes in formal and vocational education is needed.*

*In addition, a supportive ecosystem for promoting labour intensive industries, climate smart agriculture, self-employment and planned migration will contribute to lessening of youth unemployment.*

**Keywords:** *youth, unemployment, skill development*

## I. INTRODUCTION

In today's age of globalization and technological advancement, acquisition of right skills is an important tool for personal growth, employability, and building a competitive edge over other job aspirant. Skill building is considered essential for increasing the efficacy and quality of labor for improved productivity and investor attractiveness. Skills and knowledge development are the driving forces behind the financial growth and community development of any country. Youth are defined as those aged 15 to 29 in India's national youth policy (2014). This age-group constitutes 27.5% of India's population.

The National Youth Policy – 2014 (NYP-2014) proposed broader policy interventions by government and non-government stakeholders to empower youth, rather than propose any specific programs or schemes. The policy identified five objectives, one of which was to “create a productive workforce that can make a sustainable contribution to India's economic development”. Of the 11 priority areas, one was skill development and employment.

The Uttarakhand government approved the NYP 2014 for youths aimed at imparting employment- oriented training to them. Under the policy, every government department would allocate some funds with the Youth Welfare Department acting as a nodal agency for the purpose.

Government of India adopted a new National Policy on Skill Development and Entrepreneurship (NPSDE) in 2015, replacing the earlier National Policy on Skill Development (2009).

The objective of new policy is to meet the challenge of skilling at scale with speed and standard (quality). It aims to provide an umbrella framework to all skilling activities being carried out within the country, to align them to common standards and link the skilling with demand centers.

In addition to laying down the objectives and expected outcomes, the effort is to identify the various institutional frameworks which can act as the vehicle to reach the expected outcomes. This policy hopes to link skills development to improved employability and productivity.

A report by Uttarakhand Human Development Report 2019 revealed that youth unemployment rate (age group 15-29 years) in the state has doubled since the financial year 2004-05 from 6% to 13.3%. This is three times the adult unemployment rate of 4.2% pointing towards the increasing proportion of unemployed youth in the state.

The report also reveals that the unemployment situation is worse amongst the educated youth (above secondary level) at 17.4 percent for the state as a whole, with the unemployment rate for the educated male youth being higher (19.9 percent) compared to educated female youth (12.3 percent). Further, according to the National Statistical Office's (NSO) periodic Labour Force Survey for the October-December 2020 quarter found that 27% of those between the ages of 15 and 29 in Uttarakhand do not have a job, higher than the national average of 25%. Clearly, growing unemployment among the youth population posing a major policy challenge.

## II. COMMON ELEMENTS OF SUCCESSFUL LABOUR EMPLOYMENT STRATEGY

In this section, experience of China, South Africa and some selected States in India on creation of mass employment is presented. China has been one of the pioneers in creating mass employment. The major strategies adopted for reducing unemployment relied on a mix of use of labor-intensive technology, accelerating investment in agricultural infrastructure (better seeds, irrigation, roads, market infrastructure); achieve high levels of industrial growth by enlarging manufacture base, and finally, tapping service sector, particularly education, health and IT.

China's thrust for job creation is determined by productivity, market efficiency, interest rates, and job destruction. The result shows that in China, matching efficiency and productivity have positive effects on job creation, and interest rate and job destruction rate have negative effects on job creation. The jobs destroyed in para states and State enterprises was obviated by creation of new jobs in the private sector, which was aided by low interest rates (Hong et al. 2015). The Chinese State Development and Reform Commission (NDRC) is using digital technologies to promote mass entrepreneurship and innovation as examples. China's ever-expanding service sector, with new industries constantly emerging, has contributed to the creation of new jobs. In 2020, the share of tertiary sector in relation to the total number of employed in China was 47.7 percent in 2020. The labour market in China is also supported by the private sector. Dynamic market players, especially micro, small and medium-sized enterprises as well as the self-employed, provide over 80 percent of jobs and create over 90 percent of new jobs in China. In 2021, the unemployment rate in China was 4.82%, which is one of the lowest among developing countries.

The unemployment rate in South Africa in 2021 was 33.56% compared to 25% in 2010, which is among the highest in the world. Significantly, unemployment is concentrated in the 14-35 age group, which accounted for 72% of the unemployed in 2010. Consequently, South Africa's unemployment crisis is regarded as youth unemployment crisis in particular. The country opted for a macro strategy emphasising export led economic, global trade and global competition, underpinned by the conception that the state must play a minimal role in the economy. In post-apartheid years (1994 onwards), the state emphasised on redistribution of economic opportunities between whites and other communities (Jubane (2021)). The South African government has put in place initiatives and policies dedicated to reducing the level of unemployment, namely the five-year National Development Plan, the Growth, Employment and Redistribution (GEAR) strategy (1996-2001), Employee Tax Incentive introduced in 2014 and expanded in 2022, and Youth Enterprise Development Strategy (2013 onwards) (National Planning Commission 2013). The employment tax incentive reduces the cost to the employer of hiring young and less experienced workers, by allowing the employer to reduce the amount of employees' tax (also known as "PAYE" or pay-as-you-earn) that must be remitted to the South African Revenue Service with respect to a qualifying employee's remuneration. The Youth Enterprise Development strategy aims to promote youth self-employment and youth-owned and managed enterprises. Critiques point out that neo-liberal approach to economic growth has failed to generate jobs for youth. Between 2000-2021, South African GDP has grown merely at 2.35% per year. The employment strategy also does not address the root causes of youth unemployment which include the poor education system resulting in a skills-mismatch, a shift of the economy from being driven by primary sectors which are labor intensive towards Tertiary sectors which are skills intensive, geographic migration and trade unions bargaining for wage increases (Mayer et al. 2011).

The central government is the main driver of skilling of youth. It is believed that lack of skills is a deterrent to youth employability. Some of the flagship programmes launched by the Central government in the last eight years are:

### A. Pradhan Mantri Kaushal Vikas Yojana (PMKVY)

It is the flagship scheme of the Ministry of Skill Development & Entrepreneurship (MSDE) launched in 2015. It is implemented by National Skill Development Corporation(NSDC).

- 1) The objective is to enable a large number of Indian youths to take up industry-relevant skill training that will help them secure a better livelihood.
- 2) Individuals with prior learning experience or skills will also be assessed and certified under Recognition of Prior Learning (RPL). These certifications will have the grade according to the National Skills Qualification Framework (NSQF).
- 3) Training and Assessment fees are completely paid by the Government.
- 4) Since 2015, Government of India has so far launched four PMKVYs. PMKVY 4.0 was launched in 2022. The cumulative target for the first three PMKVYs was to train 132 lakhs against which 134.29 persons were trained (see table below). A notable feature of the PMKVYs is emphasize on monitoring, and reaching out to private sector for conducting the skills programmes.



Table 1: Skill Training under different phases of PMKVY (No. in lakh)

Phase	Target	Candidates Trained / Oriented
PMKVY 1.0 (Phase I i.e., 2015-16)	24.00	19.86
PMKVY 2.0 (Phase II i.e., 2016-20)	100.00	109.98
PMKVY 3.0 (Phase III i.e., 2020-22)	8.00	4.45
PMKVY 4.0 (Phase IV i.e., 2022-26)	151.48	
Total	238.48	134.29

Source: Objectives and Status of PMKVY, Ministry of Skill Development and Entrepreneurship, 9 Feb 2022 <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1796816>, and Guidelines for Pradhan Mantri Kaushal Vikas Yojana 4.0 (2022-26), Ministry of Skill Development and Entrepreneurship, 8 June 2022 <https://skillspedia.in/wp-content/uploads/2022/06/SKILLSPEDIA-PMKVY4.0-Guidelines.pdf>

*B. Pradhan Mantri Kaushal Kendras (PMKKs)*

Under the “Skill India Mission”, MSDE has initiated the establishment of the state-of-the-art Model Training Centres in every district of India. The sustainability of the centres will be assured against dedicated training numbers under Pradhan Mantri Kaushal Vikas Yojna (PMKVY) or its successor schemes (any other scheme under MSDE or NSDC). These institutions will demonstrate aspirational value for competency-based skill development training.

*C. Skill Acquisition and Knowledge Awareness for Livelihood Promotion (“SANKALP”)*

SANKALP is a program of the Ministry of Skill Development with loan assistance from the World Bank. It aims to improve short term skill training qualitatively and quantitatively through strengthening institutions, bring in better market connectivity and inclusion of marginalized sections of the society. SANKALP was launched on 19th January 2018 and has a tenure till March 2023. "SANKALP has three key result areas namely (i) Institutional Strengthening at Central, State and District level; (ii) Quality Assurance of skill development programs; and (iii) Inclusion of marginalized population in skill development programs."

*D. Skills Strengthening for Industrial Value Enhancement (STRIVE)*

STRIVE scheme is a World Bank assisted-Government of India project with the objective of improving the relevance and efficiency of skills training provided through Industrial Training Institutes (ITIs) and apprenticeships. The three-year project duration was 2019-2022. It is an outcome focused scheme marking shift in government's implementation strategy in vocational education and training from inputs to results. It is aimed at institutional reforms and improving quality & market relevance of skill development training programs in long term vocational education training. It shall incentivize ITIs to improve overall performance including apprenticeship by involving SMEs, business association and industry clusters. A total of 314 ITIs from 23 States were selected to participate in the programme. 13 Industry Clusters(IC) from 8 states have been selected in pilot phase to promote Apprenticeships. The Central government also runs several sector specific schemes. Some of the notably schemes are

- 1) “Samarth Scheme” for capacity building of 10 million workers in the textile sector;
- 2) Upgrading the Skills & training in traditional Arts/Craft for Development (USTTAD) Scheme which offers training of minority youths in various identified traditional arts/crafts through master craftsmen and develop national and international market linkages;
- 3) ShramSaathi module aims to ensure the process of livelihood migration is safe and productive for tribal migrants. Once training is done the tribal migrant worker can demand and access services, rights and entitlements etc.

Several States have launched new initiatives to expand the agricultural economy and also impart new skills among youth. Government of Chhattisgarh has expanded enrolment in MGNREGA works; overhauled the system of procurement of paddy, procurement and processing of minor forest produce to create jobs in the villages.

The Chhattisgarh government launched Suraji Gaon Yojana to promoting farming and cattle breeding activities, Under the Yojana, cow shelters (Gauthans) are constructed for stray animals and grazing land developed for fodder. Another scheme called Godhan Nyay Yojana provides assured procurement of cow dung, and vermicompost. Women's group have been trained to produce and market cow cast, baked clay lamps, incense sticks, idols and other materials besides manure from cow dung. Apart from this, production of vegetables and mushrooms, poultry, goat, fisheries and animal husbandry as well as various other income-making activities are being carried out by the women's groups in the Gauthans. The Rajiv Gandhi Kisan Nyay Yojana is a cash transfer scheme to landless farmers who are sowing crops such as paddy, maize and sugarcane. The aim of the Yojana is to ensure "minimum income availability" to farmers of the state through direct bank transfer.

Under the State Employment Mission, Government of Odisha is conducting various Skill Development Training Programmes with a view to create Employment / Wage Employment / Self Employment opportunities for the youth of the State. It has ensured high level of coordination among various Development Departments like Industries, Textile & Handloom, Fisheries & Animal Resource Development, Agriculture, Women & Child Development, Tourism etc., 72,300 youth have been trained so far in various demand driven sectors. It has also conducted specialised training programmes in association with organisations like Central Institute of Petrochemicals Engineering (CIPET), Central Tool Room and Training Centre (CTTC), Nettur Technical Training Foundation (NTTF), and Larsen & Toubro.

What distinguishes Odisha State Employment Mission is its Placement Linked Training Programme in a PPP mode. Under this training programme, the payment of training cost is linked to the percentage of placement and no advance payment is being made. India Skills /Manipal City and Guilds, Bangalore, Dhatri Foundation, Hyderabad, AAIT Solutions (Job Junction), Ahmedabad have been selected as Vocational Training Provider for this programme. A total number of 8293 applications have been received so far by the District Employment Officers in response to the advertisements for this training programme.

There are many challenges hindering successful implementation of skill programmes in India. First, flagship programmes are controlled by the Central government; there is very little say of State government and district agencies in expressing their need and designing skill development programmes to meet their specific needs. The skill training does not emphasize the findings between the opportunities and trainees' attitudes and aspirations. The disconnect between what is on offer and what trainings candidates aspire results into high levels of dropout from technical training courses.

The common elements emerging from the literature review is that most jobs are likely to be in self-employment category, or in MSME segment. High economic growth rate creates positive environment for creating new jobs. South Africa failure in job creations partially lies in its low economic growth rate of 2.35% between 2000-2021. In contrast, China was able to grow at 8.67% during the same period. China was able to reduce its dependence on agriculture due to expansion of manufacturing and services sector. During the period 2001-21, Uttarakhand grew on an average 8 per cent year, though the growth rate has progressively declined. Maintaining a healthy economic growth rate is essential to generate tax revenue and wealth in local economy, which in turn creates new demands for skills. Investment in education and health infrastructure has positive effects on productivity and employability of youth.

### III. SKILL DEVELOPMENT AND EMPLOYMENT PROGRAMS IN UTTARAKHAND

This section describes how Uttarakhand is approaching the various issues related to youth unemployment and skill development.

The bulk of skill development programs implemented by Uttarakhand are Centrally Sponsored Schemes. CSS are schemes designed by the Central government but implemented by states. Their funding is shared by center and state with a pre-defined ratio. Earlier, as a special category state, Uttarakhand enjoyed a financial advantage as it got funds from the Centre for most centrally sponsored schemes in 90:10 ratio which was raised to 50:50 in 2015-16.

Some of the notable flagship programs having bearing on youth skill development and employment is discussed here.

PMKVY offers Short Term Training (STT) courses for skill development and Recognition of Prior Learning (RPL) for skill upgradation. Under PMKVY, STT is linked to placement, while RPL does not mandate placements as it recognizes the existing skills of candidate. Both STT and RPL candidates are trained as per the NSQF. The course duration is 280 hours (theory and practical 120 hours each, employability & entrepreneurship 40 hours). High school pass outs without any job experience are eligible for enrolment. PMKVY has two components known as Centrally Sponsored Centrally Managed (CSCM) being implemented by National Skill Development Corporation (NSDC) and Centrally Sponsored State Managed (CSSM) being implemented by State Skill Development Missions (SSDMs) of the States / UTs popularly known as State- Component of PMKVY. Under the CSCM component of PMKVY, funds are disbursed to NSDC for implementation of the scheme, while under State component, the funds are disbursed to the States/State Skill Development Missions (SSDMs) for implementation. Under PMKVY, Uttarakhand Skill

Development Mission (USDM) provide a) short term training and certification; b) Prior Learning Recognition: People who have learning experience beforehand are also assessed and certified under the Recognition of Prior Learning (RPL); c) Rozgar Mela: It is organized twice a year to analyze the success of PMKVY; and d) Assistance in Placement: Upon successful completion of assessment, candidates are provided **placement** assistance by Training Providers. Under PMKVY 3.0 (2021-22), 15 training centers (PKKs) offer training in 14 job roles in 9 sectors in Uttarakhand.

Table 2: Skill Training under PMKVY in Uttarakhand (2015-21)

Particulars	PMKVY 1.0	PMKVY 2.0	PMKVY 3.0	All
Years	2015-16	2016-20	2020-21	2015-2021
Enrolled candidates	31585	179866	14818	226269
Ongoing training	0	0	691	691
Trained candidates	31585	174762	12497	218844
Assessed candidates	31313	157608	10182	199103
Certified candidates	23280	141389	6039	170708
Reported placed by training providers (TP)	2989	50639	441	54069
Placement Percentage calculated as Reported Placed / Certified	13%	36%	7%	32%
Source: <a href="https://www.pmkvyofficial.org/dashboard">https://www.pmkvyofficial.org/dashboard</a> retrieved on 22/7/2022				

The sector wise placement data from PMKVY 2.0 for the State shows that electronics and hardware (54%) and apparel (20%) are the major sources of post training employment. It is interesting to note that of the total persons placed, 80% were in wage employment, 18% self-employed and 2% were in apprenticeship<sup>1</sup>.

### PLACEMENT PERFORMANCE

Top 10 sectors with highest reported placements under PMKVY to be displayed



Industrial Training Institutes (ITI), poly-techniques, and engineering colleges are post-secondary educational institutions which supply a large number of trained technicians for the industry. Uttarakhand has 70 vocational institutions, 93 technical institutions, and 25 engineering colleges. The capacity of these institutions is not fully utilized because of moderate appetite for vocational, and technical education in Uttarakhand. In 2018-19 (the year before Covid pandemic broke out), actual admission as % of admission capacity was 69% in vocational institutions, 85% in technical institutions, and 60% in engineering colleges. On the positive side, Uttarakhand has unutilized capacity to train an additional workforce of 15027 persons being 6677 in vocational institutes, 4979 in technical institutes and 3371 in engineering colleges.

<sup>1</sup> [Pradhan Mantri Kaushal Vikas Yojana \(PMKVY\) \(pmkvyofficial.org\)](http://Pradhan Mantri Kaushal Vikas Yojana (PMKVY) (pmkvyofficial.org)

Table 3: Number of Admissions in Vocational and Technical Institutions in Uttarakhand

Sl. No.	Particulars	2017-18	2018-19	2019-20
1	Vocational institutions			
	a) Number	70	70	70
	b) Admission capacity	16659	16659	16855
	c) Actual admission	11891	11573	10178
	d) Actual admission as % of capacity	71%	69%	60%
2	Technical institutions			
	a) Number	182	93	93
	b) Admission capacity	11042	14080	14016
	c) Actual admission	7283	12038	9037
	d) Actual admission as % of capacity	66%	85%	64%
3	Engineering Colleges			
	a) Number	25	25	25
	b) Admission capacity	8520	8520	NA
	c) Actual admission	5149	5149	NA
	d) Actual admission as % of capacity	60%	60%	

Source: Uttarakhand Economic Survey 2020-21, pp. 105

Government of India under the Central Sponsored Scheme Rashtriya Madhyamik Shiksha Abhiyan introduce vocational courses at government secondary and higher secondary schools. The target group vocational education are students from classes IX to XII. The students have flexibility to choose from within number of trades which are recognized under the National Skills Qualifications Framework (NSQF). Introduced in 2013, NSQF organizes qualifications according to a series of levels of knowledge, skills and aptitude. These levels are defined in terms of learning outcomes which the student must possess regardless of whether they were acquired through formal, non-formal or informal learning. Vocational training of secondary school student is year to make a headway in Uttarakhand. As per UDISE+, (2021), pp. 137), Uttarakhand none of the Uttarakhand's 3920 secondary and higher secondary schools were offering vocational courses under NSQF.

The Ministry of Rural Development is implementing Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) for employment generation which provide employment to people in rural areas. MGNREGS is a demand driven wage employment programme which provide for the enhancement of livelihood security of the households in rural areas of the State by providing at least one hundred days of guaranteed wage employment in every financial year to every household whose adult members volunteer to do unskilled manual work. In 2021-22, there were 12,11,510 out of 21,48,561 i.e., 56.39% of the total workers. The Uttarakhand government has increased payment for workers under MGNREGS from Rs 209 to Rs 213 effective from April 1, 2022. Nearly 50 per cent of the workforce under the rural job guarantee scheme in the hill state comprises of women. Only 8.65% of the employed workforce in MGREGA in the State fall into 18-30 years category; 70% of the employed youth in MGNREGA are accounted by Almora and Chamoli, which shows relative lack of employment opportunities in these two hill districts<sup>2</sup>. There is general disinterest among youth to MGNREGA type employment which is evident from low labour participation.

The Ministry of Rural Development also implement Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) and Skill development through Rural Self Employment and Training Institutes (RSETIs). While MGNREGS provides direct employment, DDU-GKY and RSETI schemes promote employability through mainly self-employment leading to economic and social development of youths of rural area of the country. The 13 RSETIs in Uttarakhand trained 42292 youth in the last 22 years, only 3% of the trainees chose wage employment. 50% of the RSETI trainees opting for self-employment availed bank credit to start their own micro-enterprise (see Table below).

<sup>2</sup> [The Mahatma Gandhi National Rural Employment Guarantee Act 2005 \(nrega.nic.in\)](http://nrega.nic.in)

Table 4: RSETI Cumulative Performance of RSETIs in Training, Settlement & Credit Linkage since 8 Nov. 2000 up to 31.03.2022

No. of Programs	No. of Candidates Trained	No. of Candidates settled	Out of Settled under		Out of Settled under Self Employment		% of Self Employed to Credit Link
			Self-employment	Wage employment	With Bank Finance	With Self Finance	
2261	59569	42292	40837	1455	20566	20271	50%

Source: State Wise Cumulative Performance of RSETIs in Training, Settlement & Credit Linkage since inception up to 31.03.2020. National Centre for Excellence of RSETIs (NACER), Ministry of Rural Development, GOI. <http://nacer.in/docs/STATE-WISE%20CUMULATIVE.pdf>

The typical courses offered by PMKVY, and RSETI are of less than three months duration. ITI courses last between six months to two years. The courses in the engineering stream at the polytechnics are last up to three years.

Table 5: Courses offered by Polytechnics, it is, PMKVY and RSETI

<p>Courses offered by Polytechnics:            Technical diploma programs usually revolve around a technical subject (like mechanical, civil, electrical, CSE etc). Diploma in Engineering program is 3 years long. A non-technical diploma program deals with non-technical subjects such as – office practice, beauty care, beauty culture, humanities, commercial practice etc. Diploma in non-engineering program is 3 months to 1 year long.</p>	<p>Trades offered by ITIs (6 months to 2 years duration): fitter; welder; turner; electrician; wireman; machinist; electronics mechanic; motor mechanic; plumber; computer operator and programming assistant (COPA); physiotherapy technician; draughtsman (civil/mechanical); health sanitary inspector; cutting &amp; sewing technology.</p>
<p>Training for job roles offered under PMKVY (150-300 hours duration): Sewing Machine Operator – Knits, Sewing Machine Operator – Knits, Self-employed tailor, Hand Embroidery, Mobile Phone Hardware Repair Technician, Field Technician - Computing and Peripherals, Field Technician - Other Home Appliances, General duty healthcare assistant, Travel Consultant, Front office associate, Assistant electrician, Business Correspondence and business facilitator for banks, Quality Seed grower, Domestic Data entry operator, and Field sales executive -telecom plans and services</p>	<p>Training offered by RSETI (80-240 hours duration: homemade incense stick maker; dairy farming and vermicompost making; commercial horticulture; papad, pickle and masala powder; cultivation of medicinal and aromatic plants; vegetable nursery management and cultivation; travel &amp; tourist guide; mushroom cultivation; 240 hours courses in plumbing and sanitary works; refrigeration and air-conditioning; UPS and Battery Making &amp; Servicing; and carpentry.</p>

One of the reasons why vocational courses witness low admission is poor job placement post training. PMKVY data for 2015-21 shows only 32% of the candidates placed in jobs by PMKVY training providers. RSETI offers courses for self-employment which does not meet the aspirations of the youth.

#### IV. CHALLENGES OF SKILLING AND EMPLOYABILITY OF YOUTH IN UTTARAKHAND

Skilling and employability of youth are beset with many challenges; some of these are flagged below.

##### A. Weak School Educational Foundation

The state is home to 12756 primary, 5483 upper primary, 1389 secondary and 2541 higher secondary schools. The setup of schools across villages has increased the accessibility of education for the students. The government has initiated several programs such as National Mission for Secondary Education), Samagra Shiksha Yojana, and Uttarakhand Vidhyalae Shiksha Parishad to promote education at the school level. However, Uttarakhand schools face three chronic quality issues. First is school dropout.



Based on data maintained by the Ministry of Education – Unified District Information System for Education (UDISE) and All India Survey of Higher Education (AISHE), annual school dropout rate in Uttarakhand in 2020 was 2.47% at primary level, 2.26% at upper primary level and 8.41% at secondary level. More girls drop out at primary level, while more boys drop out at higher secondary level. Uttarakhand Government’s Economic Survey (2021) report that the dropout rate has further come down in 2020-21 to 1.7% in primary level, 1.4% in upper primary level and 9.1% in secondary level.

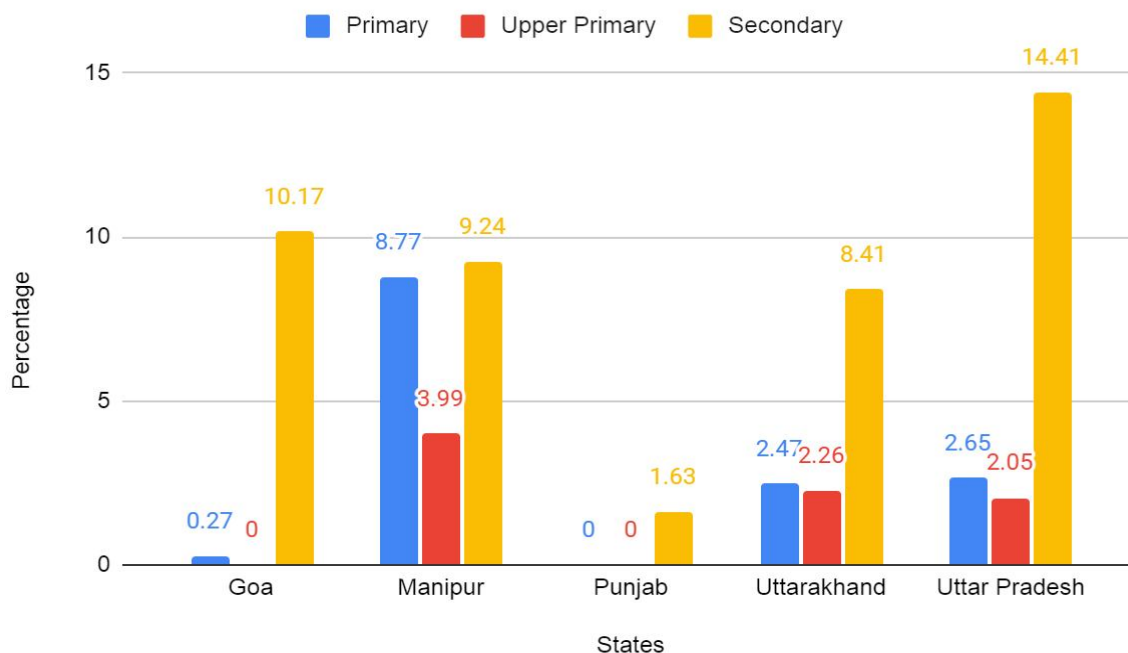


Figure 1: Drop Out Rate in Schools in India (Source: UDISE and AISHE 2020)

The other issue is weak learning at primary and secondary schools. According to ASER learning assessments are conducted in the household, Children in the age group 5-16 are assessed. The type of school in which children are enrolled (government or private) is also recorded. among children in Std III, 4.6% cannot even recognize numbers 1-9, 22.4% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 40.7% can recognize numbers up to 99 but cannot do subtraction, 23.9% can do subtraction but cannot do division, and 8.4% can do division. There are 54961 teaching staff and 7952 non-teaching staff in schools. Many government schools in the state are at the mercy of a single teacher. As many as 39,000 students in 1,689 primary schools in the state's 13 districts see only one teacher each day at school, records of the state education department reveal<sup>3</sup>. In schools with multiple teachers, chronic absenteeism due to authorized leaves, absence due to official duties, and absence without reason has crippled learning of students. Many teachers posted in the interiors and hill districts simply do not turn up. The state education department is in the process of installing biometric cards in all government schools to monitor and prevent teacher absenteeism.

### B. Outmigration and Failing Agriculture

The last census of the State in 2011 estimated the number of migrants in Uttarakhand at more than 40 lakh – about 40% of the population. According to the Rural Development and Migration Commission, Uttarakhand, the inability to diversify livelihoods in rural areas is the biggest factor pushing outmigration (50%), followed by lack of educational institutions (15%) and healthcare facilities (9%). Most of the Most of the migrants are young male, and educated. The Migration Commission’s data shows that 29% are 25-year-old or younger, 42% are 26-year to 35-year-old and 29% are over 35 years. Because of migration, more than 1787 villages are abandoned and completely deserted. Migrant remittance account for 30-40% of hill household income; these families spend more money on daily chores, house repair, education, and retire debts wherever required.

<sup>3</sup> Over 1,600 schools in Uttarakhand have just one teacher, The Economic Time, Dec. 28, 2014. [https://economictimes.indiatimes.com/news/politics-and-nation/over-1600-schools-in-uttarakhand-have-just-one-teacher/articleshow/45666830.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cpsst](https://economictimes.indiatimes.com/news/politics-and-nation/over-1600-schools-in-uttarakhand-have-just-one-teacher/articleshow/45666830.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cpsst)

Agriculture accounts for 22% of the state's domestic product catering to the employment needs of 75-85% population. However, the growth rate of agriculture was merely 2.2 per cent in 2019-2020 compared to 7.8 per cent in 2016-17. The existing pressure on agriculture in the State include a decrease in per capita land holding, dependence on rainfed farming, crop loss due to attacks by wild boars or monkeys, and shortage of farm labor because of waning interest in farming among young people. Rising temperature, water stress and irregular pattern of rainfall is set to lower agricultural productivity unless climate adaptation techniques in hill farming is rapidly adopted (Upadhyay et al. 2021).

*C. Not Enough Jobs are being Created within the State*

Uttarakhand is one of the fastest growing states of India; the State's economy clocked above nine percent growth during the last decade. The growth rate of Uttarakhand's Gross State Domestic Product (GSDP) (at constant prices) was estimated to be 6.9% in 2018-19, a decline from the 9.8% growth rate in 2016-17, and 7.8% growth rate in 2017-18. Both agriculture and industry sectors have seen weakening in their growth since 2017-18.

Micro, Small and Medium Enterprises (MSMEs)<sup>4</sup> are a major source of employment all over the world. The Prime Minister's Employment Generation Programme (PMEGP) is a credit-linked subsidy programme aimed at generating self-employment opportunities through establishment of micro-enterprises in the non-farm sector by helping traditional artisans and unemployed youth<sup>5</sup>. The scheme was launched during 2008-09. PMEGP Scheme facilitates generation of self-employment opportunities through establishment of micro-enterprises in the non-farm sector by helping traditional artisans and unemployed youth. General category beneficiaries can avail of margin money subsidy of 25 % of the project cost in rural areas and 15% in urban areas. For beneficiaries belonging to special categories such as ST/SC/OBC/women/Minorities etc. the margin money subsidy is 35% in rural areas and 25% in urban areas. The maximum projects cost is Rs 25 lakh in the manufacturing sector and Rs 10 lakh in the service sector.

According to data collated from the Department of Industries website, between 2019-2022, 6682 units were established with an investment of Rs. 1140.23 crores creating employment for 52,542 persons. The micro units account for 93% of the total units, 67% of the investment made, and 87% of the employment generated. The manufacturing sector and services sector account each for half of all the jobs created. The cost of creating each job in the manufacturing sector was Rs. 3.1 lakhs and in the service sector Rs. 1.20 lakhs.

Table 6: List of MSME Units Established in Uttarakhand 2019-2022

Particulars	Micro	Small	Medium	All MSMEs
No. of units	6358	317	7	6682
of which manufacturing	2708	143	5	2856
of which service	3650	174	2	3826
Investment in Lakh Rs.	76201	29910	7913	114023
of which manufacturing	33307	22860	7619	64310
of which service	38164	11780	294	49714
Employment	45508	5849	1185	52542
of which manufacturing	22105	3010	908	26018
of which service	23403	2839	277	26524

Source: Compiled from DOI - Directorate of Industries ([doiuk.org](http://doiuk.org))

<sup>4</sup> MSMEs are small sized entities, defined in terms of their size of investment. The investment size of micro, small and medium are below Rs. 25 lakhs, small between Rs. 25 lakhs and Rs. 5 crores, and medium Rs. 5 crores to Rs. 10 crores.

<sup>5</sup> Source: Office Memorandum F. No. SCH-11/712020-SNP Government of India Ministry of Skill Development & Entrepreneurship (PMKVY Division - SD Wing), Dated:23.12.2020. [OM dated 23.12.2020 from MSDE.pdf](#)

**D. Surplus Labor Supply Over Demand**

NSIDC had prepared a demand supply gap of labor in unskilled, semi-skilled and skilled segments. Currently, Uttarakhand has surplus labor in all the three categories. This labor can only hope to get employment outside the State. The Government and civil society can set up counselling centers to advise young trainees and match their skills with vacancies inside and outside the country.

Table 7: Incremental Demand and labor Supply (2022-27)

Skill Category	2012-17		2017-22		2022-27	
	Demand	Supply	Demand	Supply	Demand	Supply
Minimally skilled	381444	768542	922278	977123	1463112	1185704
Semi-skilled	163539	134754	432011	177038	700483	546574
Skilled	290304	206236	706855	274753	1123406	297346
Total	835287	1109532	2061144	1428914	3287001	2029624
		-274245		632230		1257377

Source: Author’s calculation by extrapolating NSDC (2018) figures for 2017-22. extrapolated.

**V. RECOMMENDATIONS**

This section makes certain recommendations to increase youth employment and employability in Uttarakhand.

**A. Improve Quality of Primary and Secondary Education**

To begin with teacher attendance in primary and upper primary schools must be ensured through biometric monitoring and verification by Parent Teachers Committee in schools. Where possible, hybrid learning which combine traditional in person teaching with learning modules delivered through Internet. Children from families who do not have resources like smartphones will require special attention so that their access to leaning opportunities is not compromised.

Investment in education and health yields substantially more employment than investment limited to physical infrastructure, and can provide vital contributions to raising productivity and income growth and increasing economic specialization. To accelerate job creation via infrastructure expansion requires urgent and effective leadership on two fronts. First, the Government could promote institution-building in Uttarakhand under PPP mode. Like industries, national and international institutions could be attracted with financial support and tax breaks to establish their operations in the State. Secondly, the Government with the help of think tanks need to reimagine the future. New economic verticals are emerging due to technological transformation, Uttarakhand has to be in vanguard position to take advantage of the new opportunities.

**B. Offer What Youth Want, and in Line with Market Demand**

The phenomenon of surplus of labor semi-skilled and skilled labor calls for fine tuning training offerings. The courses should be designed as per the aspirations of youth and demand in the market. The sectors which have high to medium demand and high youth interest are depicted in the table below.

<p>Low</p> <p>Medium</p> <p>High</p>	Agriculture & Allied Services	Manufacturing, construction, transport, and warehousing	Tourism, hospitality, trade, IT/ITES
	Retail estate and banking services	Health care, automobile, auto components	Food processing, education
	Social Services	Handloom and handicrafts	Government Service
	Low	High	High

Figure 2: Gap between Youth Aspiration and Market Demand

The personnel at training institutions may be provided generous incentives for making genuine placement. The incentive amount could be 20% of an employees pay. Any course which fails to achieve placement above 60% may be closed, and the overall performance of the institution closely scrutinized and appropriate administrative action taken.

### C. Tap potential of agri-SMEs and Tourism in New Ways

In certain pockets of Uttarakhand, agricultural produce (fruits, vegetables, flowers and berries) is still plentiful. In such locations, the Industry Department may identify scope for medium industrial units for agro processing. These units may be established on Public Private Partnership mode with the government leasing land at concessional rate, utilities, and facilitating access to institutional finance. The NSDC (2018) study had recommended Rishikesh for food processing; Pauri Garhwal and Chamoli for aromatic plant processing; Pithoragarh and Uttarkashi for medicinal plants, and Pinder valley in Bageshwar and Chamoli for vegetable and agriculture produce processing.

Hills are increasingly becoming unlivable leading to mass migration to the plains and urban centers in the country (Pathak et al 2017, Reddy & Sarap 2017). Hostile environmental have caused a perceptible decline in agriculture, which is still the backbone of the rural economy and employs more than 60 per cent of the population of Uttarakhand ( Pankaj and Pant, 2016). According to the Union Ministry of Agriculture, the net sown in area in Uttarakhand has declined by around 10 per cent, from 769,944 ha in 2000-01 to 701,030 ha in 2013-14. Further, according to a report prepared by the Uttarakhand Rural Development and Migration Commission in 2018, more than a third of the population of Uttarakhand's rural, hilly areas have migrated out in the last two decades, according to a recent report. Nearly 3.2 million people — 60 per cent the state's population — have left their homes since the formation of Uttarakhand in 2011. Uttarakhand had 1,700 ghost villages, according to a 2018 report from the state. The landmass is approximately 85000 hectares of private land and 40500 of 'benap' land<sup>6</sup>. These ghost villages are often connected to Van Panchayats<sup>7</sup> and Reserve Forests. Around 1,000 villages had less than 100 people. These villages are mostly located in Almora and Pauri Garhwal districts. The number of such ghost villages has reportedly risen particularly after the earthquake and flash floods of 2013 and 2020. Some experts put the number at 3,500.

Conventional development solutions such as rural roads, piped water, schools, and hospitals have not reached the ghost villages (Awasthi and Mehta 2020). A combination of negligence, high cost of physical infrastructure, and weak political voice have worked against the ghost villages.

A non-conventional solution is to turn the abandoned ghost villages into wilderness, introduce economically gainful horticulture, attract low impact high value tourism, and revive the local ecology. The benefit of the eco-restoration can be shared with local community, private companies, and State agencies. Further, the participating villages can be incentivized through sharing of carbon credits, payment for ecological services, and earnings from horticulture, and tourism. A conservation easement trust<sup>8</sup> could be established which buys out all available land from the 1700 abandoned villages, create land pools which can be leased out to wilderness tourism enterprises and horticulture companies. Those villages which do not wish to sell, may participate in the activities of the easement by leasing out their land to the trust.

The advantage of such easements is a) enables the Trust to provide professional services in a cost-effective manner; b) facilitate consolidation of fragmented land parcels; c) negotiate with the government from a position of strength to access entitlements, and facilities; d) creates a marketable land bank which the government and private can avail for infrastructure, horticultural products processing, and tourism projects, and e) create and enhance economic value of the resources available.

Solving the root causes of the abandonment will improve the lives of those who choose to live in the ghost villages, stop environmental destruction, reduce CO<sub>2</sub>, the prime factor behind global warming, and restore natural resources particularly, soil, water, forests, and wild life.

## VI. CONCLUSION

Youth unemployment in Uttarakhand is a ticking bomb. Persistent large-scale unemployment can trigger social unrest. Appropriate market-oriented training can prepare the youth for taking up their due role in the economy.

<sup>6</sup> 'Nap' land where land titles are established. 'Benap' (unmeasured) land and for exercising villagers' rights of grazing and use of forests for their fuel, fodder, timber etc., needs. These boundaries were drawn in conformity with the customary rights enjoyed by the villagers over the adjacent forests and generally covered wide areas with a radius of about 5 miles from the centre of the village (Saxena, 1995).

<sup>7</sup> Nearly 71% of the state's total geographical area is covered under different classes of forest – 45.4% is classified as reserve forest, 8.92% as civil and soyam forest, 0.18% as protected forest, 13.41% as panchayati forest and 0.29% as private forest. Van panchayat areas are carved out of civil and soyam forests. The official record suggests that at present there are 12,167 van panchayats engaged in the management of 7,32,688.9 hectares of forest area, in reality Van Panchayat land is less due to encroachment. The Forest Panchayat Act, 1931 enacted under Section 28(2) of the Indian Forest Act, 1927 led to the formation of village forest councils with powers to design and implement the rules for accessing and distributing forest resources, monitoring them, imposing penalties on violators, and generating and judiciously using income for forest welfare. However, these have been considerably diluted through subsequent amendments.

<sup>8</sup> On the ground examples of successful conservation easements in India are rare. Two private easements may be referred to (Jilling Estate in District Nainital, Uttarakhand spread over 41 ha see <http://www.jilling.net/index.html>; and Save Animals Initiative Sanctuary located in the Kodagu district in the Indian state of Karnataka spread over 120 ha, see <http://www.saisanctuary.com/about.htm>). Both have demonstrated that eco-restoration is both economically and ecologically feasible and sustainable. In US, UK, Australia and France, conservation organizations and local governments have bought ecologically sensitive areas for recreation and conservation purposes. These are largely financed by philanthropies, crowd funding, and government subventions.





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