

NATIONAL INITIATIVE FOR SKILL INTEGRATED HIGHER EDUCATION (NISHE)

CENTRE FOR RESEARCH IN SCHEMES AND POLICIES (CRISP)



Centre of Excellence for National Initiative for Skill-Embedded Higher Education (NISHE)

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1. Introduction

- 1.1. India is going through a phase of demographic dividend, which will last only for the next 3 decades, where the working age population far exceeds the dependent population. However, benefits from this are conditional to the working age population being skilled and productive. Unfortunately, with 7 Crore unemployed youth, many of them educated but unskilled, there is an economic cost of almost \$175 Billion imposed on the Country. Nearly 80% of the students coming out of the higher education system are adding to the list of unemployed every year. This poses a serious challenge threatening to nullify the demographic dividend, unless expeditious steps are taken to rectify the situation.
- 1.2. The way out of this seemingly desperate situation is to ensure that the youth are both educated and skilled, and also get decent jobs. The study¹ by OECD showed stunning increase in GDP growth rates when skill levels are raised. Presence of skilled workforce will crowd in private investment. Studies have also documented the impact of the foreign investment coming in with the presence of skilled labour and the further upskilling effect of FDI² on skill levels. The overwhelming evidence shows the impact enhanced skill levels have on the economy apart from that on the households.
- 1.3. With the Vision 2047 being formulated to make India into the Skill Capital of the World, no time can be lost in a massive skill upgradation effort. Whereas the Ministry of Skill Development and Entrepreneurship runs a host of schemes for skill upgradation, especially short-term programmes, the Higher Education system has to rise notches above to embed higher order 21st Century skills into the degree courses.

¹ OECD (2015), "Relationship between skills and economic growth", in Universal Basic Skills: What Countries Stand to Gain, OECD Publishing, Paris.

² Souare, M., Zhou, B. Foreign-affiliate presence and skilled labour demand. *Int Econ Econ Policy* **13**, 233–254 (2016). https://doi.org/10.1007/s10368-014-0302-y



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2. NEP and embedding skills in higher education

2.1. One of the important directives of the National Education Policy 2020 was to impart employable skills in the students so that they will participate in the Nation's economic growth. Chapter 16 of the NEP2020 states that:

16.5. By 2025, at least 50% of learners through the school and higher education system shall have exposure to vocational education, for which a clear action plan with targets and timelines will be developed. ...Higher education institutions will offer vocational education either on their own or in partnership with industry and NGOs. The B.Voc. degrees introduced in 2013 will continue to exist, but vocational courses will also be available to students enrolled in all other Bachelor's degree programmes.

16.7. Different models of vocational education, and apprenticeships, will also be experimented by higher education institutions.

- 2.2. In July 2020, UGC had issued the guidelines for the Apprenticeship Embedded Degree Programmes under which 20% of the total credits (132) are to be allocated for the apprenticeship programme. However, the programme shall have at least 24 credits for the core courses so as to make the student eligible for higher courses in the area if needed.
- 2.3. However, the progress in this respect is tardy since bringing the industry and educational system together needed special efforts. Study in Uttar Pradesh and Telangana showed that the HEIs are still aligned to the objectives of NEP in embedding apprenticeship into the degree programmes. Hence the intervention by the Centre for Research in Schemes and Policies (CRISP).



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3. Work done so far

- 3.1. The National level pilot project had started in the Ministry of Education, Government of India in 2019-20 with 20 colleges introducing BBA programmes in Logistics and Retail, which are skill-embedded courses of 3 years with apprenticeship becoming part of the curriculum. The initiative was popular with all students getting both apprenticeship placement as well as final placement on course completion with an average salary of Rs. 25,000/per month. Several students opted to pursue MBA programmes straightaway on completion owing to the oneyear work experience gained through the apprenticeship during study.
- 3.2. In the post-pandemic phase, the exercise regained some momentum and more than 60 colleges in the logistics sector, 20 in retail sector, 15 in hospitality sector and 5 in healthcare sector offered skill embedded degree courses in states like Andhra Pradesh, Telangana, Himachal Pradesh, Tamil Nadu and Gujarat.
- 3.3. Based on these pilots, we know that the model of integrating skills with higher education to make the system more productive and the students more employable is working, and it can be scaled up.



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4. Centre for Research in Schemes and Policies (CRISP)

- 4.1. Formed by 10 civil servants who worked at the level of Secretary to Government of India, the Centre for Research in Schemes and Policies (CRSIP) is committed to improving delivery of social sector schemes for large scale welfare gains. All members of CRISP work pro-bono following the giving-back-to-society principle. CRISP has also set up a highly professional team with balance of youth and experience that works on focused projects which are crystallized after detailed study along with the State Governments.
- 4.2. The CRISP advantage is summarized as under:
 - 1) Easy entry into the State Governments
 - 2) Detailed understanding of the issues at the field level enabling identification of the gaps in implementation
 - 3) Acceptability in the Government
 - 4) Ability to design and re-design large schemes
 - 5) Low mobilization time
- 4.3. CRISP has been registered under the Societies Act in New Delhi (Reg Number: @/3007/SD/2022) with All-India jurisdiction. CRISP is operating in the social sector areas including poverty alleviation, panchayat raj, rural development, education and health. CRISP is also associated with the Capacity Building Commission of India as a knowledge partner.

4.4. Services at no cost basis to State Governments:

CRISP provides services to the State Governments free of cost, on the condition that State Government provides the logistical support to the CRISP teams and would be an active joint partner with CRISP. All the Founding Members of CRISP who are doyens in the field of Social Sector are working on the project on pro-bono, they mentor the CRISP teams which are consisting of young professionals and experienced leaders. The cost of these teams is met by philanthropists like Bill & Melinda Gates Foundation. Hence there is no cost to the State Government.



- 4.5. In early 2023, CRISP adopted employability in education as one of its important areas of intervention and signed MoUs with the states of Uttar Pradesh, Telangana and Madhya Pradesh.
- 4.6. The model involved a systematic process that can be summarized as under:
 - Working with the State Governments to recognize the importance of skill embedded general education (technical education already does that) that seamlessly integrates industry and the colleges. This would involve issuing regulatory frameworks which become the basis for partnerships with industry.
 - 2) Preparing the industry associations and Sector Skill Councils to prepare curriculum, identify internships and start engaging with higher education system. The curriculum involves 1/3rd to ½ of the total credits of the course allotted to performance in the apprenticeship.
 - 3) **Identifying the colleges** which would be the prime-movers of the model, based on quality parameters, and orienting them to work with industry by giving space, and set up labs for the skill teaching within the college premises.
 - 4) **Forging a formal relationship** between the SSCs and the Colleges into a formal relationship through a MoU that defines the responsibilities of each.
 - 5) **Training the teachers** to teach the new curriculum, and to incorporate the learnings from apprenticeship into the classroom.
- 4.7. Within a short period, CRISP managed to get the model implemented in UP and Telangana States in about 200 colleges providing opportunity for about 10,000 students (who studied neither technology nor science) to use this facility and join the skilled workforce. This involved working at the cutting-edge level with college principals, forging partnerships with 5 Sector Skill Councils of Retail, Logistics, Fashion Design, gaming, Hospitality and Healthcare. The ratio of Government colleges to private colleges is about 60:40.



4.8. Main Features of the employability Model of CRISP:

The following were the main features of this programme:

- a) Focus is on the general education colleges and not on technical institutions; on government colleges rather than on private colleges. This is to focus on the poorest sections of the students.
- b) The **skill embedding should be long-term:** in a three-year or fouryear degree course. No short-term skill trainings would give the required depth of knowledge about the sector.
- c) **Apprenticeship shall be an essential part of the course**. It shall not be less than one-year in the three-year degree period. It can be run simultaneously with the classroom learning; or can be run as an end-of-course one year programme.
- d) The **skill component shall be designed by the Industry**'s Sector Skill Councils who represent the industry needs. They shall also take up teacher training, curriculum development and assessment.
- e) There shall be **campus placement** after completion of the course providing employment to all students.
- 4.9. The status of the programme in Telangana and UP is as follows:

S. No.	Sector/Degree	No. of Colleges	No.ofSeats/Strength@60 per batch
1	BBA (Retail)	42	2520
2	BBA (Logistics, E- Commerce)	13	780
3	BBA (Healthcare)	11	660
4	BSc (Tourism & Hospitality)	12	120
5	BSc (Fashion Design)	2	120
6	BSc (Gaming Design & Development)	1	60
	Total		4260

Telangana



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Uttar Pradesh

SI. No.	Sector/Degree	No. of Colleges	No. of Seats/Strength @60 per batch
1	BBA (Retail)	49	2940
2	BBA (Logistics, E- Commerce)	23	1380
3	BBA (Healthcare)	23	1380
4	BSc (Tourism & Hospitality)	18	1080
	Total	113	6780

- 4.10. The exercise in both the states has been approved to encompass a total of more than 10,000 students during 2023-24. However, only about 2,000 students took admission since the admission process in these states started after the main admission season.
- 4.11. All teething problems due to unfamiliarity of colleges with new skill embedded courses are addressed by CRISP through mentoring. Complete monitoring of implementation of the courses is carried out by CRISP. We now have a hope that this Model will work and can be scaled.

4.12. Value of the Model

- 1) This Model is **inclusive** and takes care of the most neglected and hopeless part of higher education the general education colleges.
- 2) It is **collaborative** brings together state governments, Vice-Chancellors, college principals and industry.
- 3) It is **economical**, as skills are integrated into the general education. Students are not learning skills outside college at a high cost. Only cost incurred is the cost of setting up labs where needed.
- 4) It is **credible** since the prime agencies the Sector Skill Councils, are regulated and monitored by Govt of India, and have no fly-by-night operations.
- 5) It is **sustainable** since the courses, once approved and the teachers trained, will continue thereafter. The students who get placed in apprenticeships and jobs become the brand ambassadors.



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5. National Initiative for Skill Integrated Higher Education (NISHE)

5.1. The National Initiative for Skill Integrated Higher Education (NISHE) proposed to scale up the pilots already done in AP, Telangana and Uttar Pradesh, to 10 states, 1 lakh students covering 15 sectors over a period of 3 years.

5.2. <u>Salient Features:</u>

The following are the salient features:

- a) The sectors would comprise a mix of high order and middle order skills depending fully on the type of sector and nature of industry demand, which would be further viewed in relation to the economic growth pattern and educational levels of the State, area.
- b) All interventions would be in association with the concerned State **Governments** through timeline based MoUs in partnership mode.
- c) Associate and **involve corporate sector**, especially those companies which have prioritized inclusive, outcome-based education.
- d) The skill embedded courses would not only be in the form of full-fledged 3-year degree courses but also **elective courses** that can be taken by graduate students of all disciplines. This will ensure greater penetration and coverage of students.

5.3. <u>Sectors for the Project</u>

Based on the readiness of the SSCs to work with the Higher Education System, and potential for employability, the following sectors have been chosen:

- 1) Logistics
- 2) Retail management
- 3) IT &ITES
- 4) Banking Financial services and Insurance (BFSI)
- 5) Healthcare
- 6) Tourism & Hospitality
- 7) Electronics
- 8) Capital Goods
- 9) Life Sciences
- 10)Fashion Design & Apparel
- 11) Media & Entertainment.



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These are sectors led by Sector Skill Councils which are oriented to the requirements of the education system and where credible apprenticeship linkage systems exist.

5.4. Project area

The project is proposed to be implemented in 10 States selected on the basis of the willingness of the State Govts, and in 1433 colleges.

S.No.	State	Total	2024-25	2025-26	2026-27
1	Maharashtra	313	78	110	125
2	Karnataka	239	60	84	96
3	TN	214	54	75	86
4	UP	148	37	52	59
5	Telangana	118	30	41	47
6	Rajasthan	107	27	37	43
7	MP	87	22	30	35
8	AP	84	21	29	34
9	Odisha	62	16	22	25
10	Himachal	61	15	21	24
Total		1433	358	502	573

5.5. These numbers are arrived at after discussion with the Sector Skill Councils and the Industry associations. The sector-wise break up of the colleges is as below:

Sector	IT& ITE S	BF SI	Logis tics	Touri sm &Hos pitalit y	Healt hcar e	Retai I	Life Scie nces	Media & Entertai nment	Fashi on Desig n	Elec tron ics	Capi tal Goo ds	Tota I
Maharashtra	100	40	30	30	25	20	20	20	15	10	3	313
Karnataka	40	20	30	25	30	30	20	20	15	6	3	239
TN	40	20	25	25	20	20	20	20	15	6	3	214
UP	25	30	20	20	15	20	5	5	2	5	1	148
Telangana	30	20	20	8	10	0	10	10	5	3	2	118
Rajasthan	20	15	10	25	10	10	5	5	5	1	1	107
MP	15	20	10	10	10	10	5	5	2	0	0	87
AP	20	10	10	7	10	10	10	5	2	0	0	84
Odisha	15	5	5	5	10	10	5	5	2	0	0	62
Himachal	10	5	5	20	5	5	5	5	1	0	0	61
TOTAL	315	185	165	175	145	135	105	100	64	31	13	1433



5.6. However, based on the requirements of the State Government, these numbers can be altered after assessing the capacity of the SSCs.

6. Operation of NISHE

- 6.1. The project will be operationalized as follows:
 - 1. CRISP would work with selected State Governments to adopt the model. Thereafter sign MoUs with the State Governments for a project with specific inputs and outputs.
 - 2. CRISP will coordinate with other non-profit organizations to achieve a bigger coverage of the intervention.
 - 3. The State Government would identify the colleges in consultation with Vice-Chancellors and CRISP.
 - 4. Mapping of colleges to courses would be carried out by the State Government and CRISP based on suitability in terms of apprenticeship potential.
 - 5. Groups of colleges identified for each course would be assigned to the relevant Sector Skill Councils (SSCs) by CRISP and detailed discussions on curriculum, training of teachers, apprenticeship linkage would be held, after which an MoU would be signed by the SSCs with colleges.
 - 6. The colleges would identify suitable teachers within, who can be trained by the SSCs for running the courses. While the admission process is on, training of teachers would be carried out by the SSCs. Where the college has no suitable faculty to offer, the SSC would either provide trainers at a cost to the college or attach a training partner for conducting the entire course.
 - 7. Some courses (detailed in later paras) would require the setting up of labs in the college campus with varying costs, depending on the sector.
 - 8. Curriculum, apprenticeship, assessment, and placement assistance would be the complete responsibility of the SSCs. This would be continuously monitored by CRISP in every college.
 - 9. CRISP along with donors and State Govt would assist in setting up the required labs and training of the teachers.
 - 10. The project monitoring would be done by a PMU set up by CRISP.



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7. Integration with UGC

- 7.1. The courses would be degree courses integrated with industry demanded skills woven into the curriculum with apprenticeship/internship linkage as per the UGC stipulated credit structure and guidelines.
- 7.2. Alignment of the colleges with industry would establish a relationship where dynamic changes in curriculum at pace with industry changes are affected, with the entire skilling component being imparted in accordance with the National Skill Qualification Framework (NSQF), regulated by the National Council for Vocational Education and Training (NCVET) under the umbrella of the Ministry of Skill Development and Entrepreneurship (MoSDE).
- 7.3. For the education system in India, especially colleges, the most direct, sustainable and credible industry-connect will come from the SSCs, whose mandate is to provide skilled work force to the industry group they represent. Cutting edge training is facilitated by the SSCs through Qualification Packages (QPs) designed based on National Occupancy Standards (NOS). Although there is an SSC for every industry vertical in the country, in this exercise, we are considering 7-8 SSCs which are active in the college system.
- 7.4. As per extant UGC guidelines and the flexibility provided therein, skill integration into education can take place through:
 - (i) Full-fledged degree programs
 - (ii) 35-40 credit elective courses
 - (iii) 1-year diploma courses

Examples of full-fledged degree programs would be BBA (Logistics), BBA (Retail), B.Sc. (Life Sciences), BBA (Healthcare), B.Sc. (Tourism & Hospitality) etc. Industry Apprenticeship would be an integral part of such courses.



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8. Costs

- 8.1. The costs for this project are as follows:
 - a) **Preparation of curriculum** will be met by CRISP and SSCs
 - b) **Teacher training** will be met by CRISP by tapping from philanthropists.
 - c) **Teachers** the existing teachers will be retrained. If special instructors are required, it has to be met by the College.
 - d) **Preparing the college/lab** (where needed): Most of the courses do not need laboratories. Where needed, it has to be met by the State Government in case of Govt colleges, and private management in case of private colleges.
 - e) **Running the course** SSC will charge around Rs. 5,000 per student per year for this purpose. This includes the costs for placing and monitoring each student in the apprenticeship. Apart from this, assessment costs will be separately charged from the students as per common norms of Government of India.

9. Timelines

9.1.	The following will	be the timelines f	for the project for 2	2024-25:
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S.No.	Activity	Timeline	To be done by		
1	Acceptance by State Government	29.02.2024	State Govt		
2	Finalisation of budgets and signing of	15.03.2024	CRISP & State		
	MoUs		Govt		
3	Meeting of Universities	31.03.2024	State Govt		
4	Curriculum submission to Universities for	01.04.2024	SSCs and CRISP		
	approval				
5	Selection of colleges by State Government	15.04.2024	State Govt		
6	Approval by Universities BoS and	01.06.2024	Universities		
	Academic Council to selected colleges				
7	Training of Teachers	15.06.2024	SSCs/ CRISP		
8	Issue of Prospectus for AEDPs	30.06.2024	Colleges		
9	Admissions & Classes Commencement	15.08.2024	Colleges		
