

Skill Development in India: Structure, Priorities and Missed Opportunities

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Abstract

As India faces the gargantuan challenge of skilling more than half a billion people and make them work-ready, it is also grappling with the challenge of creating the right mechanism to accelerate the process. The primary role of NSDA has been to anchor and operationalize the National Skills Qualification Framework (NSQF) to ensure that quality and standards meet sector specific requirements. Skill development programs came into being shortly after the formation of the Republic of India in 1950, when the Apprentices Act of 1961 was formulated and implanted as law of the land. The NSQF also helped to draw a framework of correspondence or equivalence to the formal academic system of grades or classes, setting the stage for formal recognition of skill training through certification, which is carried out by the NCVT. The robust and disciplined attempts at formalizing the skill development universe through the creation of Sector Skill Councils (SSC) in the NSDC, the development of National Occupational Standards (NOS) and the creation of a National Skills Qualification Framework (NSQF) under the government ambit have helped create a global-level skill development infrastructure.

Keywords: *Skill Development, MES scheme, Skill Training, National Occupational Standards*

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I. Introduction

As India faces the gargantuan challenge of skilling more than half a billion people and make them work-ready, it is also grappling with the challenge of creating the right mechanism to accelerate the process. In 2019, the Ministry of Skill Development and Entrepreneurship (MSDE) initiated the establishment of the National Council for Vocational Education and Training (NCVET), a non-statutory regulatory body that was approved by the Union Cabinet in 2018. This regulator subsumes two existing organs, the National Council for Vocational Training (NCVT) and the National Skills Development Agency (NSDA). The NCVT was the apex advisory body of the Government of India in all matters pertaining to vocational education. It designed and updated the National Vocational Qualification Framework (NVQF) and set the standards for awarding Trade Certificates for vocational training. It was the regulator of all vocational programs including those delivered by ITIs and also under the Modular Employable Scheme (MES).

As the country makes major changes in its approach to skilling its populace, it is important to understand how the skill development ecosystem has evolved over the decades since Independence to reach the stage it has. This understanding will also help in gauging the level of community involvement or otherwise in this social development process as well as the relevance to new challenges in skilling the population.

II. Institutions, Policies And Programs Of Skill Development In India

The NSDA was the NCVT's counterpart in the skill development programs space. It was constituted as a coordinating, centripetal agency that would have data and oversight on all skill development programs across the country and be the nodal agency for state skill development missions. It would help craft relevant skill training in consultation with all stakeholders, notably the private sector, grassroots industries, experts and training providers. The NSDA was usually headed by a reputed leader from the private sector and was expected to be the authoritative go-to body for all matters related to skill development.

The NCVET is expected to bring together the roles of the NCVT (setting standards for vocational education) and the NSDA (coordinating the efforts in short-term skill programs) under one umbrella organization. A notification (1) from the Press Information Bureau, the Government's communication arm, dated 10 October 2018 and headlined "Cabinet approves merger of NCVT and NSDA to establish National Council for Vocational Education and Training, NCVET", spelled out the reasoning and role of the NCVET

thus: "...In the past, most of the country's skill training needs were met through courses offered by the Industrial Training Institutes (ITIs) and under the Modular Employable Scheme (MES), regulated by NCVT. Since this infrastructure was not enough to meet the increasing skill requirements of the country as well as the skilling needs of the growing workforce, the Government took a number of initiatives to scale up the skilling efforts. These efforts resulted in a large expansion of training infrastructure much of which is in the private sector. At present, there are 20 Ministries/ Departments implementing skill development programs mostly using private sector training providers.

"However, in the absence of adequate regulatory oversight, numerous stakeholders have been offering training programs of varying standards with multiplicity in assessment and certification systems which are not comparable, with serious consequences for the vocational training system and thus the employability of the country's youth. An attempt towards some measure of regulation was made with the establishment of the National Skill Development Agency (NSDA) in 2013, to coordinate and harmonize the skill development efforts of the government and the private sector. The primary role of NSDA has been to anchor and operationalize the National Skills Qualification Framework (NSQF) to ensure that quality and standards meet sector specific requirements.

"This institutional reform will lead to improvement in quality and market relevance of skill development programs lending credibility to vocational education and training encouraging greater private investment and employer participation in the skills space. This in turn will help achieve the twin objectives of enhancing aspirational value of vocational education and of increasing skilled manpower furthering the...agenda of making India the skill capital of the world.

"Being a regulator of India's skill ecosystem, NCVET will have a positive impact on each individual who is a part of vocational education and training in the country. The idea of skill-based education will be seen in a more inspirational manner which would further encourage students to apply for skill-based educational courses. This is also expected to facilitate the ease of doing business by providing a steady supply of skilled workforce to the industry and services..."

From the notification it is clear that the Government intends the NCVET to be the regulator of all skill development programs everywhere, in the private sector and the public sector. It is expected to bring about standardization across sectors and monitor the application of standards. That is an unexceptionable requirement. But, even as late as 2018, there is stress on 'market relevance', 'supply of skilled workforce to the industry and services', and 'ease of doing business', but hardly any discussion around *community relevance of skill training programs*. In engendering and driving this 'push' model of skill development, hardly any attention has been paid to the more organic, 'pull' factors that would arise from community involvement in the design and development of skill training programs.

Skill development programs came into being shortly after the formation of the Republic of India in 1950, when the Apprentices Act of 1961 was formulated and implanted as law of the land. The Act was intended to prepare the youth of the country for jobs as apprentices in major industrial units, with industry mainly being in the public sector, under government control. It was a time when the education system was also evolving and emphasis on engineering education to staff industrial lines was picking up pace. Apprenticeship is an effective way for young adults to transition from school to work life while improving links between industry and training institutions. Apprenticeships are successful because they facilitate 'learning by doing' leading to 'earning while learning', combining formal education with hands-on experience. The Indian Railways introduced a systematic apprenticeship system followed by the Defense department. The Indian apprenticeship system is well established and used mainly for imparting technical and manufacturing skills. It is supported by legislative and administrative arrangements.

Companies, however, were wary of using apprentices because of cumbersome compliance procedures, inspections by labour officials and penalties that include imprisonment. To remedy this, the Government of India moved the Apprentices (Amendment) Bill 2014 approved by both Houses of Parliament. This bill gave a major boost to the government's labour reforms and skill development initiatives, paving way for more employers to join the apprenticeship training scheme. The 'Apprenticeship Pratsahan Yojana', as it is called, will cast the net of apprentice skilling wider. Under this scheme the Government will bear 50% of the stipend of apprentices engaged in industries covered by the Apprentices Act, thus enabling industries in the Micro Small Medium Enterprises (MSME) category to engage apprentices, which would otherwise have proved expensive for this category. The DGT also provides policy guidance to the ITI program.

Apprentices are mainly sourced from the rich veins of:

- (1) The formal education system, mainly graduates and under-graduates;
- (2) The informal sector, including school/college drop outs;
- (3) The engineering schools, whether diploma or degree holders; and from
- (4) The Industrial Training Institutes (ITIs)

The last mentioned set of institutions, the ITIs, constitutes the second prong of the skill development activities that the nation embarked upon early in its life. ITIs were established as a lever for technical education in trades that were urgently required in a nation that was growing in the industrial sphere, initially under a program called Craftsmen Training Scheme. The Craftsmen Training Scheme was completely rolled over to the state governments and is now administered by the state governments. ITIs awarded certificates and diplomas in trades like electrician, plumber, automotive mechanics, carpentry, lathe-work and masonry, to give examples of a few trades. The ITIs produced the vast army that was required to man the shop floors in industries and retail maintenance assignments for domestic and industrial purposes. ITIs were established by the government, mainly, but the private sector was also allowed to establish and administer ITIs. A flourishing network of ITIs emerged in the country in the 1960s and 70s.

A third thrust area in skill development of the country also emerged in the 1970s, and that was vocational education in schools. Starting with classes 9 and spanning across class 10, 11 and 12, vocational education was built into the curriculum of schools to catch students young and train them for livelihood. Carpentry, electronics, agri-farming, photography, mechanical repairing, etc., were taught in schools to prepare students for vocations.

Several government agencies came into being to administer the three streams of skill development - Apprenticeships, ITIs and Vocational Education. The Apprentices program is administered by the Directorate General of Training (DGT) at the Centre, through its organs, the Regional Directorates of Apprenticeship Training (RDAT). At different times, various components of the Apprentices training were handled by two ministries, Ministry of Human Resource Development (MHRD), now renamed Ministry of Education, and Ministry of Labour and Employment. Since the formation of the Ministry of Skill Development and Entrepreneurship (MSDE), however, all agencies associated with skill development have been consolidated under the MSDE. There are organizational restructuring efforts underway, though, as seen in the formation of the NCVET. ITI and other Diploma institutions at the state level are handled by the State Councils of Vocational Education and Training (SCVET). In the state of Odisha the council is the State Council for Technical Education and Vocational Training. The curriculum, examination and certification of all medium term technical and vocational courses are handled by the state governments now through such Councils, which may be named differently in different states.

III. Shifting Paradigms In Skill Development

The skill development ecosystem was primarily oriented to the ITIs till the start of this millennium. The trades taught in ITIs, however, were suitable to the manufacturing industry context that dominated India's economic landscape till the economy liberalized in 1992. As sectors such as services and information technology took centre stage in India's economic story so did the realization that skill shortages could easily derail that story. This realization, though, sank in very slowly. After all, the first Skill Development policy was rolled out in 2009, seventeen years after the sudden liberalization of the economy. The 2009 Policy document (2) listed the areas in which skill development would be required, setting a target of training 530 million by 2022.

New agencies in skill development: After the roll-out of the national policy in 2009, the largest skill development targets were set for the newly created National Skill Development Corporation (150 million) and the then Ministry of Labour and Employment (100 million). With such a large target, requiring heavy investment in logistics and delivery capacity, the skill development ecosystem has seen involvement of many stakeholders across the country and some from overseas. Industry bodies like the Federation of Indian Chambers of Commerce and Industry (FICCI), the Confederation of Indian Industry (CII), and the National Association of Software and Services Companies (NASSCOM), premier corporations like Tata Sons, Piramal Industries, NALCO, SAIL, Hindustan Unilever, the Eicher Group, the Bajaj Group and many others, either through their corporate mechanism or through their Foundations, Universities, the World Bank group and many other bilateral and multilateral agencies have woven their way into the skill development ecosystem, some to study and guide, others to invest and still others to implement programs.

The Government of India, too, has made changes as the challenges of skill development surfaced with the passage of time. Not just a new Ministry has been carved out to focus on skill development, along with entrepreneurship, a new skill development policy, too, was created and set into motion in 2015. The 2015 policy is authored and owned by the Ministry of Skill Development and Entrepreneurship. The second policy is called National Policy on Skill Development and Entrepreneurship 2015. As can be noted, entrepreneurship has been focused upon to solve the livelihoods problem, apart from jobs. The 2015 policy emphasizes, in a clear recognition of the biggest challenge of skill development in the country, scale and speed of skill development.

Skill training at scale and speed: One of the most important thrust areas in skill development was short-term training that emphasized scale. With the very large numbers to train the Government launched a scheme in 2015, called Pradhan Mantri Kaushal Vikas Yojana (PMKVY) (www.pmkvyofficial.org). The Scheme,

administered by the MSDE is treated as the flagship skilling initiative of the Ministry, with the aim of skilling 10 million people across the country through Short-Term Training (STT) and Recognition of Prior Learning (RPL) certification. While STT is self-explanatory, with courses lasting from one to three months in most trades, RPL recognizes and certifies informally obtained skills, at home or in some occupation, in trades like masonry, electrician, lathe-work and so on, so as to enable mobility and up-gradation of working conditions. In a written reply to the Rajya Sabha, the then Minister of State in the MSDE, Mr. RK Singh, informed the Upper House of Indian Parliament that “Under PMKVY (2016-20), as on November 11, 2019, approximately 69.03 lakh candidates have been trained throughout the country” (3). A Press Release (4) from the Government of India’s Press Information Bureau (PIB) dated 29 November 2019 stated that the Scheme for 2016-2020 has an outlay of Rs. 12,000 crores. “Under PMKVY (2016-20), as on 11.11.2019, 69.03 lakh (appx.) (38.01 lakh STT + 31.02 lakh RPL) candidates have been trained throughout the country”. The Press Release also captured a neat summation of skill development programs in the country. “Under the Skill India Mission, about 20 Central Ministries/Departments including Ministry of Skill Development and Entrepreneurship (MSDE) are involved in the implementation of more than 40 schemes for various skill development programs for youth across the country. Major schemes include Pradhan Mantri Kaushal Vikas Yojana (PMKVY), National Apprenticeship Promotion Scheme (NAPS), Rural Self Employment and Training Institutes (RSETI), Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY), etc.” The PMKVY is the key skill development scheme under the Skill India Mission. It was launched in 2015 and then re-launched for a four-year frame in 2016. Now PMKVY 3.0 was for 2020-2021(5).

IV. Skill Training Providers And The Priorities Of Skill Education Systems In India

The infographic from the KAS-FICCI report (6) gives an overview of the entire education and skill development system in India, from early childhood through to the doctoral programs (Figure 1). Skill development programs, intuitively, are meant to address needs of school drops-out and also drops-out from various stages of the education system. These are individuals who, in the absence of an educational certificate, will not be able to find employment. Skill development programs, therefore, not only equip them with additional skills for employment, but also formalize their training with personalized documentation to that effect. Yet, the scenario takes on a vastly different hue when one considers that several reports point out how students with formal higher education lack employability skills, notably communication, inter-personal relationships, decision-making, initiative and strategic thinking, among others. This was among the first attempts to create a concomitance between the formal education system in India and the skill development architecture that the country has now created, through the National Skills Qualification Framework (NSQF).

The NSQF also helped to draw a framework of correspondence or equivalence to the formal academic system of grades or classes, setting the stage for formal recognition of skill training through certification, which is carried out by the NCVT. Under NSQF, the learner can acquire the certification for competency needed at any level through formal, non-formal or informal learning. In that sense, the NSQF is also a quality assurance framework. Presently, more than 100 countries have, or are in the process of developing national qualification frameworks.

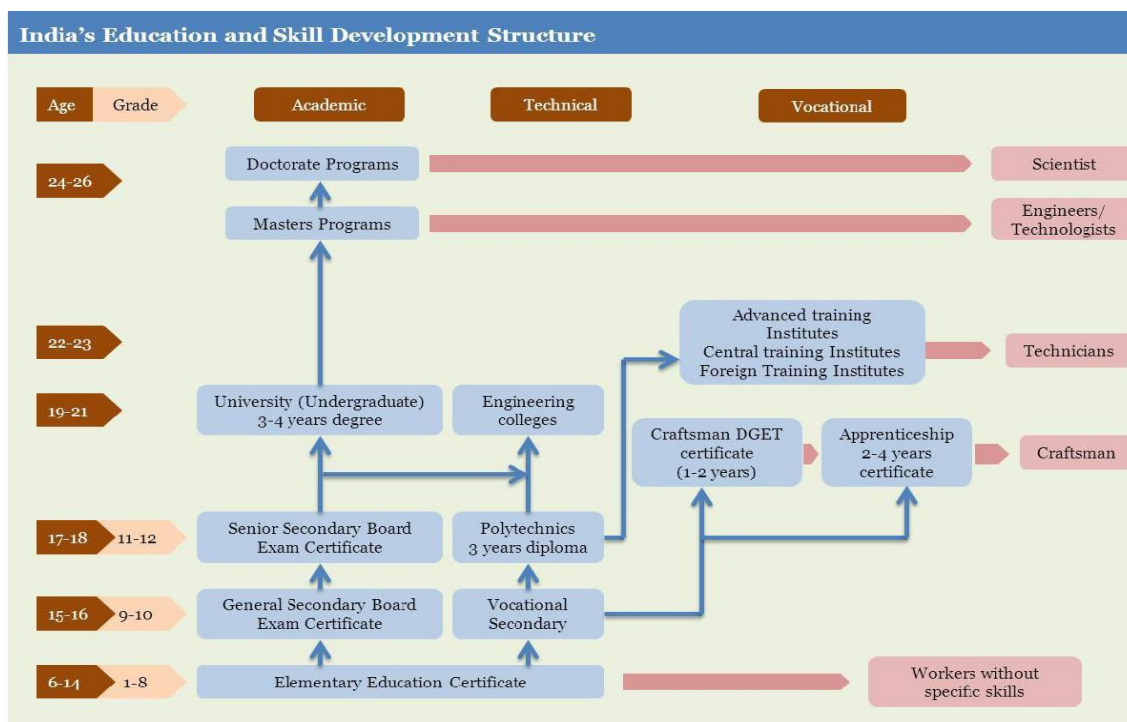


Fig.1 How the Skill Ecosystem folds onto the Education System in India: An Infographic

Fundamental challenges in designing and deploying skill programs: Complex as the skill development landscape in the country is, there have been several attempts to streamline and systematize the landscape. Several reports have highlighted the challenges of the same, especially in the vulnerable areas and sections of our society. A report (7) prepared by the Tata Strategic Management Group (TSMG) spells out the challenges accurately. Writing about participant sourcing for the skill development programs, the report says, “This is probably the most fundamental challenge that training providers face. Most of these institutes are set up in rural or semi-urban areas, where accessing the catchment population is a challenge. The awareness about vocational training programs and resulting benefits are low. Drop-out ratios amongst students can be high as well since the student does not attach much value to a training that is paid for by the government. Thus ensuring steady flow of enrolments and an acceptable level of capacity utilization is a constant challenge for training providers.” Substantial number of programs in skill development target vulnerable sections, the poor, tribal, school dropouts, low-paid workers, women, slum-dwellers, migrant labour and other identified sections. It is at this point that we must revisit the challenges in implementing such programs as the report states. In fact, the report identifies four critical challenges:

- Accessing population to impart training in remote/rural/enclosed settlements;
- Creating awareness of the skill development programs, the process and the outcomes;
- Arresting drops-out from the programs; and
- Creating respect for the value of the training among participants

These are not unique challenges and have been faced by skill development providers ever since the inception of the idea. For communities oriented towards the formal education system, about which there is considerable awareness in all sections, skill development programs are a large question mark. The operation and outcomes of such programs are not easily marketed in resource-starved communes simply because communities in difficult circumstances may prefer or support more conventional forms of education and training to the one that skill development providers market.

Local needs vis-à-vis interest of large industries: This form of isolation further adds to the complication of the skill development process in un-served and under-served areas of the country. As the TSMG report further observes, it is “incumbent for players (skill-providers) to establish the right industry linkages and ensure that their choice of students and skill areas are driven by industry requirements. Given the current shortage of skilled labour, the industry would benefit tremendously if their needs are addressed, creating the possibility of an added revenue stream for the vocational training provider.”

As can be seen, apart from the challenges listed above, knowledge of the industrial terrain is deemed to be important for planning livelihood training. *What is lost to sight is jobs in the local area would be attractive for the participants in skill development programs.* While skill gap analyses revolve around skill sets demanded by

industries, intersect of the skill gap analyses with local enterprises and industries, mainly within a district, could provide locally relevant data for customizing the programs. This would help plan relevant and more acceptable programs for participants.

The legacy vocational training infrastructure of Industrial Training Institutes and polytechnics has now grown in number to approximately 12,000 and 3,200 respectively, government estimates show. While this is the foundation of the skill development ecosystem in the country, a dramatic shift has taken place with the initiation of the Modular Employable Skills (MES) program in 2008, and the National Skills policy of 2009. Local relevance has a major role to play in making this program, the MES, effective and impactful. The local relevance of the MES and the salutary humanitarian impact such relevance can bring to the livelihood context in the country cannot be overemphasized. Yet, the local relevance is not articulated emphatically enough.

V. Modular Employable Skills And The Architecture Of Mass Skilling

The gigantic task of skilling millions for employment and livelihood needed innovative solutions, and the MES route was found to be an appropriate route. The throughput in the traditional skill development programs of schooling, apprenticeship, diplomas and degree was found to be small and did not address the millions dropping out of formal systems for a variety of reasons and, yet, seeking livelihood solutions. The gestation period in traditional skilling processes was, appropriately enough, large and so did not suit the skilling and livelihood issues of millions who were outside these formal processes. The National Policy for Skill Development and Entrepreneurship 2015 (8) articulated the problem with a flourish. "Our country presently faces a dual challenge of paucity of highly trained workforce, as well as non-employability of large sections of the conventionally educated youth, who possess little or no job skills," the document says. Yet, it was the National Skill Development Policy of March 2009 that made the original case for a widespread MES program strong enough for MES to become to fulcrum of the skill development policy of the government. It can, in fact, be surmised that a national policy for skill development emerged since the role for MES was found to be unavoidable in the nation's scheme of education and skilling thereby requiring the underpinning of an official policy document. It was a transformative program and had many strategic thrusts that were not seen in earlier vocational programs. The MES roll out happened in 2007-2008. The first national skill development policy followed the subsequent year. In section 3.8 (e), the 2009 policy (2) states that "Multi-skilling, multi-entry and exit, and linkages to skill up-gradation opportunities in the future, will characterize such programs. The scheme of Modular Employable Skills will be expanded greatly to cater to the large size of the group."MES is so named because the instruction is delivered in concise modules of short-duration learning.

There was another challenge that confronted the skilling universe: millions who were not part of the formal process had nevertheless acquired skills in their search for livelihood. They had acquired skills like carpentry, masonry, plumbing, electricity repairing, hoeing, threshing, crop planting, driving, brick-laying, poultry-rearing, cattle-breeding, word-processing, accountancy, tailoring, beauty-care, house-keeping, laundry operations and many other such areas in purely informal settings - in households and communities, in the neighborhood shop or factory, through experienced professionals in the fields, who employed them for wages. Some acquired these skills in self-owned businesses that ranged from the rudimentary to the somewhat sophisticated. These were skilled individuals who faced challenges in having their skill recognized by employers since they lacked any certification of their knowledge and skills. This is where the Government of India introduced the Recognition of Prior Learning (RPL) scheme under its modular skills training. The official website of the Pradhan Mantri Kaushal Vikas Yojana defines RPL as "an assessment process used to evaluate a person's existing skill sets, knowledge and experience gained either by formal, non-formal or informal learning." (9).

VI. The Design Underpinnings Of The Mes Scheme

MES was developed in close consultation with industry and micro enterprises in the un-organized sector, state governments, experts and academia. It offered flexibility in the provision of vocational training to those who have limited education and cannot afford to be away from employment for long periods of time. It also provides for testing and certification of existing skills of a person as the SDI scheme provides a mechanism of third party assessment of trainees under the MES framework through DGET empaneled Assessment Bodies leading to NCVT (now NCVET) certification that has national recognition in India.

The MES Scheme constitutes the fulcrum of this thesis since it is the largest skill development program, by throughput volume and, therefore, has the biggest impact and implication in terms of community engagement and sustainability. The International Labour Organization India Country Office position paper(10) published in July 2013 summed up the impact that short-term skill training had had at that time. "...Against a target of training 1 million persons during the 11th Plan (2007-12), close to 1.4 million were trained and assessed. To date, 1433 course modules have been developed which cover a variety of trades and 7000 Vocational Training Providers along with 46 Assessing Bodies have been registered."The Skill Development

Initiative (SDI) launched by the Government of India in 2008, in fact, revolved around the development and deployment of the MES program. This initiative brought to the fore organizations for skill development known as Skill Training Providers (STP) or Vocational Training Providers (VTP) and other organizations that specialized in conducting assessments of the trainees, called Assessment Bodies. To ensure high standards of governance in the administration of the SDI-MES program these two sets of activities, one, training, and two, assessment, were vested with separate agencies so that no conflict of interest happens.

The ILO report captures outcomes from a survey regarding the effectiveness of the MES program. It says, “The scheme is targeted towards the early school leavers and un-organized sector workers among others to increase their employability and skill level. The flexibility of training delivery has also proved beneficial to people who cannot devote a long time to studies. Respondents suggested the scheme had helped facilitate improved access to training and promoted equitable access, increased earnings of participants, and achieved the desired scale of participants. It was also considered to have improved industry participation through the assessing bodies which are empaneled throughout the country and involve employers at the grass roots level.”

The report also stressed the utility of the RPL scheme in the MES fold saying that “...the scheme was also considered to have opened doors for the recognition of prior learning including traditional skills, and ascertaining skill levels of those already a part of the trade. It has helped those who acquire training informally, due to certain socio-economic constraints, to be assessed and have their skills nationally recognized thus enhancing their employability...The scheme is considered to have helped provide certification of vocational skills to people for whom it is not possible to undergo formal education due to restrictive program prerequisites. The certification has enabled them to have better livelihoods, develop soft and advanced skills and increase their productivity at work. It also increases their bargaining power in industry.

“Working under the model of a public private partnership, the scheme has also helped private training institutions obtain accreditation under DGET and NCVT norms for running vocational training programs and given the network of VTPs involved, has made it easier for potential trainees to find vocational training centers in their area. Another identified strength of the program was the involvement of third parties in the assessment process which was seen as an important contribution to quality outcomes”, the report further adds.

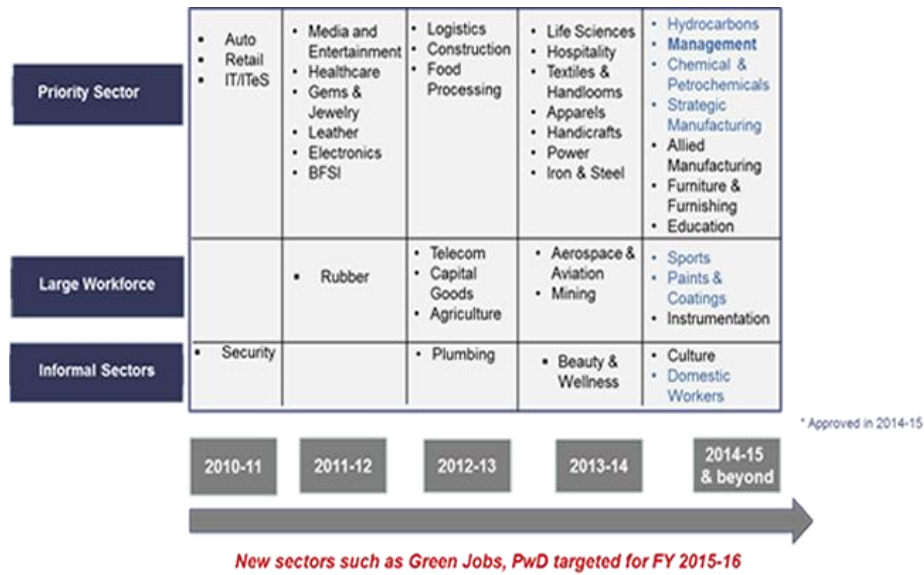
That is, then, the architecture of the MES (including RPL) scheme: STPs provide the training, assessors assess the trainee and certification is done by NCVT. In all of this, however, note that the process is driven by all *but the communities and participants*. The STPs have adopted certain trades in which they have specialized in providing training. This, in turn, is driven by skill-gap analyses or assumptions that are oriented towards inorganic industry/employer requirements. The clear goal is generation of employment for participants. Fees for such training is borne by the Government and transferred directly to training and assessment bodies.

VII. Shaping The Structure Of The Skill Behemoth

The MES Program under the Skill Development Initiative has succeeded in creating an entire industry, with thousands of Skill Training Provider or Vocational Training Provider (VTP) organizations now dotting the country. Most of them are affiliated to the Directorate General of Training or the National Skill Development Corporation and enjoy the patronage of these government organizations through complex instruments of linkage, funded and non-funded dispensations of the government bodies. These institutions have penetrated into rural India as well and have established training centers in the hinterland.

The robust and disciplined attempts at formalizing the skill development universe through the creation of Sector Skill Councils (SSC) in the NSDC, the development of National Occupational Standards (NOS) and the creation of a National Skills Qualification Framework (NSQF) under the government ambit have helped create a global-level skill development infrastructure.

Sector Skill Council (SSC): SSCs, for example, are autonomous, public-private bodies constituted under the aegis of the NSDC to regulate skill development activity in functional sectors of the economy. With their boards led by industry captains, the SSCs regulate occupational standards and the qualification benchmarks that are necessary to meet the standards. Almost 40 Sector Skills Councils have come into existence, the earliest of them in 2010-11.



Sector Skills Councils: Timeline of formation

Fig.2: Timeline of Formation of Sector Skill Councils

(Source: Ministry of Skill Development and Entrepreneurship website)

Figure 2 provides the timeline of the constitution of the SSCs. It can be seen from the chart that over the past 7 years the number of SSCs has grown to include almost every sector in the economy and almost every field of livelihood. The formation of the SSCs, again, has followed the creation of the Modular Employable Skills program through the Skill Development Initiative of 2008. It is only to be expected that such a large program of mass skilling will require institutional frameworks to support and monitor the program.

National Occupational Standards (NOS): The formation of the Sector Skill Councils now led to a wider process of consultation and formalization of the skill development process. The National Occupational Standards were developed by the SSCs in consultation with employers (mainly private sector players, NGOs, Community Based Organizations) and the government among many others. The NOS are a set of performance standards that are expected of an individual joining work in a sector. The NOS are, therefore, competencies that are necessary to discharge a Job Role. A Job Role defines the activities that an individual has to perform to gain desirable work outcomes for the organization. Job Roles are graded by complexity and are organized in a hierarchy.

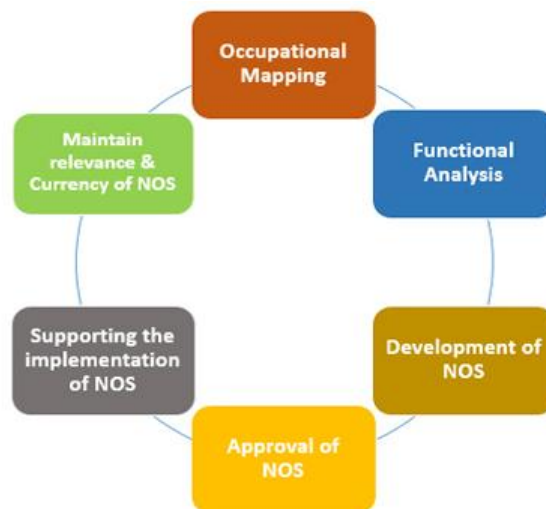


Fig.3: Framework for Creation of National Occupational Standards (NOS)

The Agriculture Sector Skill Council resource provides the framework (11) for drawing up the Occupational Standards (Figure 3). The framework is graphically represented above

(a) The process starts with Occupational Mapping: Identify key stakeholders in the Agriculture sector and understand their organizational structure. This will include identification of industries associated with the sector and other employers;

(b) **Functional Analysis:** Analyse the activities individuals are expected to do as part of their job and identify outcomes that these individuals should achieve. This is the stage of role-analysis and captures the unique as well as generic activities specific to a position;

(c) **Development of NOS:** It incorporates performance criteria, together with knowledge, understanding and skills pertaining to a job. In this stage the NOS takes shape, with documentation of the key aspects of the role.

(d) **Approval of NOS:** It will be validated by small, medium and large industry players (minimum 10 employers per category), and then by Qualification Ratification Committee (QRC) at NSDC.

(e) **Supporting the Implementation of NOS:** All key stakeholders will drive the validation and implementation of NOS.

(f) **Maintain relevance and currency of NOS:** It will be developed taking into account current industry requirements. Periodic review will be done to maintain currency of occupational standard.

The development of the NOS laid the primary ground for the formalization of the mass skilling program that the nation embarked upon. It is a rigorous set of standards that are expected from roles that one plays in a job. The NOS is also a toolkit for individuals helping them to:

- Create a checklist to measure own performance.
- Develop new skills and enhance existing skills.
- Understand and facilitate career progression at the workplace. It also helps in lateral/vertical movement within the organization.
- Assess self-performance against expected job description as well as assess one's competence against other job roles and thus gauge suitability for career moves.

And, while it helps employees, it also provides organizations to lay down the template for employment:

- Increase business productivity by developing a better trained, better equipped and more effective workforce.
- Reduce the costs for recruitment by hiring industry ready people who are already meet the criteria mentioned in occupational standard like performance criteria, knowledge and understanding.
- Develop training programs to address both organizational and individual learning needs. The training can then be evaluated against the outcomes.
- Arrive at a similar job description for a particular job role to maintain uniformity across the industry.

For these standards for each Job Role in each sector, the SSCs developed Qualification Packs or QP that spelt out the skills, knowledge and attributes required to make the role a success. Qualification packs have been developed for select NOSs now, those that are most in demand, where large numbers are required to be skilled.

National Skills Qualification Framework (NSQF): The idea of the NSQF was also spelt out in the 2009 Skill Development Policy. In the section defining operational parameters of the policy, the clause S2 of the policy stated, "Skills framework must move to a system of equivalence to diplomas and degrees; National Vocational Qualification Framework (NVQF) will be created with an open/flexible system which will permit individuals to accumulate their knowledge and skills, and convert them through testing and certification into higher diplomas and degrees. NVQF will provide quality assured various learning pathways having standards, comparable with any international qualification framework. NVQF will support lifelong learning, continuous up-gradation of skills and knowledge."

The National Skills Qualification Framework (NSQF), developed by the Ministry of Human Resource Development (MHRD), as the Ministry of Education was then known, Government of India, is a descriptive framework that provides a common reference for linking various qualifications. It is used for setting common principles and guidelines for a nationally recognized qualification system covering Schools, Vocational Education and Training Institutions, Technical Education Institutions, and Universities/Colleges. The NSQF organizes qualifications according to a series of levels of knowledge and skills. These levels are defined in terms of learning outcomes i.e., the competencies (Attitude, Skills and Knowledge, or the ASK of a role) which the learners must possess regardless of whether they were acquired through formal, non-formal or informal education and training system.

The Construction Sector Skill Council amplifies that the specific outcomes expected from implementation of NSQF are as given below. This is, of course, applicable across all sectors.

1. Mobility between vocational and general education by alignment of degrees with NSQF
2. Recognition of Prior Learning (RPL), allowing transition from non-formal to organized job market
3. Standardized, consistent, nationally acceptable outcomes of training across the country through a national quality assurance framework
4. Global mobility of skilled workforce from India, through international equivalence of NSQF
5. Mapping of progression pathways within sectors and across-sectors
6. Approval of NOS/QPs as national standards for skill training

In many tangible ways the skill development eco-system in India has been made robust, thorough and comprehensive. Institutions have been set into place, as is evident in the creation of the NSDC, SSCs and NCVET, adding to the Directorates of Education and Training at the state and central levels. Now, a full-fledged ministry has been created for this activity. Standards and guidelines have been enunciated in the NOS and NSQF, apart from the many policy guidelines issued regularly. *But, these formidable standards and institutions only drive home the fact that skill-development is centrally-managed, top-driven and community-agnostic, if not community-apathetic.* The very sections and locations (rural, mofussil) that it seeks to serve have never been seen as participants in the development of the standards and institutions.

One can easily see the thoroughness with which the architecture of skill development in the country has been built. Competencies have been articulated in the NOS, mapped to qualifications, and then aligned with progressively complex levels in the NSQF. But, this architecture has not made any allowance for the voice of the communities and the participants. It could have, by asking these very simple questions:

- a. What is it that they would like to be trained in and certified?
- b. What skills, when augmented, would allow them to earn more in trades that they are comfortable in?
- c. What trades and skills would enable them to stay in their roots, support their communities and satisfy their motivational needs?
- d. How does a community view skill development programs and what does the Voice of the Community speak about in relation to the program?
- e. How can skill development programs be taken close to the community, to understand their needs and train their participants to fulfill those needs?

There is no gainsaying the fact that the architecture of skill development in the country needs to be developed by professionals and experts, working in institutions that support their scholarship and expertise and with access to plans and resources that will put India's ambition in skill development in the realm of reality. However, it is important to bear in mind that the entire skill development program is meant for vulnerable sections of society who need to be tapped for ideas. The skill development initiative needs to dynamically align with the needs of the industry and work backwards to create training programs. Technology can play a critical role by exploiting economies of scale and reach larger target audience... While addressing the industry-needs skill-gaps, it is important to look at the 'aspirations gap' of the youth too.

It is to be noted here that neither SSCs nor the NSQF are original Indian innovations. Sector Skill Councils are a European system that has spread throughout the world. In a paper(12) for the European Training Foundation, vocational education specialist Petri Lempinen writes that "The ETF has promoted sector approaches in the partner countries since the 1990s. Recently, this work has been linked with national qualifications frameworks in various countries including Croatia and Turkey. Establishment of the Sector Skills Councils is on the agenda in many ETF partner countries in the Western Balkans, Eastern Europe and Central Asia. There are also examples of sector approaches in Morocco. The ETF is currently supporting or planning to support this type of work in Azerbaijan, Belarus, Kyrgyzstan, Moldova and Serbia. In Eastern Europe, this support mostly occurs within the framework of the Continuing Training in Eastern Europe regional project.

"...Many industrial and developing countries use sector approaches to promote skills development in the knowledge that great benefits can be gained from internal organisation within individual sectors. The fact is that labour markets are not homogeneous, and skilling needs will vary from one economic sector to another depending on the activities pursued by each sector and the nature of the associated technologies. Each sector perspective will also depend on the markets open to them and the availability of a skilled work force.

"...Some form of occupational framework would be useful in building an approach to skills training and there are many such schemes available for consultation. In principle, such a classification should follow the logic of the economy and labour market in question, with the term 'sector' used to refer to one branch of industry or a cluster of professions for the purposes of this document."

Over a period of five years, starting around 2009, as the various Sector Skill Councils formed and developed, the development of NOSs and NSQFs picked up pace, adding to the formalization of the entire skilling sector that was actually looking at skilling Indian youth in numbers that were unimaginable a decade back. The single largest flaw in the process, of course, was that it was, at least, two decades behind schedule. The process of skill development should have picked up pace around the time the demand for skilled Indians grew with the liberalization of the economy in the early 1990s, or around the Y2K crisis in 1999-2000 that created an exponential demand for Indian Information Technology talent. Now, the numbers that required skilling were much, much larger and the time available to skill them much, much shorter. This was a scenario tailor-made for fly-by-night operators, lax regulation and all-round disappointment.

VIII. The State Of Employment And Unemployment In India And Its Impact On Skill Development Activities

This article is brought to a close by discussing salient aspects of the emerging employment scenario in India, which is necessary to develop a lasting perspective on skill development action in the country. The National Sample Survey 68th Round (13), conducted between July 2011 and June 2012 is the most recent large scale government survey conducted by the Ministry of Statistics and Program Implementation on the situation of employment and unemployment in the country.

From the perspective of skill development, several strategic pointers can be gathered from this study to better inform planning and decision-making in the sector. With a majority of the Indian population living in rural areas, despite the surge in urbanization and rapid peri-urbanization, skill development programs need to be tailored to the needs of the rural employable pool if the problem of unemployment and under-employment is to be meaningfully handled. Most of the target population for skill development in urban context, in any case, is drawn from migrants from rural areas who inhabit slums and peri-urban areas. Community consultations will make the skill development program more relevant for the target population.

The NSSO report has tabulated industries that are demanding employees at the moment. While the agriculture sector accounts for a large proportion of employment in the rural areas, the hotel, recreation and entertainment sector has gained traction in urban areas. Females in urban areas are employed mainly in other services which include the health sector, beauty treatment, tele-calling and reception services and financial sector. For skill development programs to make an impact it is necessary to focus on these sectors as well as to choose and groom candidates on the basis of their aptitude. The report further points out the share of the manufacturing sector in generating employment for both males and females is significant, 22 and 29 per cent respectively. Employment in the construction sector is also growing and is slated to rise faster as India focuses on infrastructure development. Agriculture and crafts are also likely to generate employment in large numbers.

The report sounds a warning that unemployment rate among the youth (in the age group of 15-29 years) was higher than the rest of the population. This has implications for the social fabric, political mobilization and general economic health of the country. The urgency of systematic and forceful deployment of skill development programs cannot, again, be overemphasized. The headroom for mobilizing this demographic segment as participants in skill programs is large. Consulting with them is the first step towards the mobilization.

The NSSO report is a flag for engaging with our youth through sensitive community mobilization channels. These channels will have to be deployed not just by the skill development providers but also by the government, academic institutions, NGOs and corporations among other agencies. This thesis deals with alignment of programs with the aptitude and ability of youth and relevance of the programs to the local context, specifically to the ability to find jobs or to establish small businesses in the local areas. Our skill development programs cannot be one-size-fits-all. To be able to generate significant and sustainable sources of livelihood they will have to factor in local conditions and demands as well as individual participant requirements.

And, finally, the report underscores the yawning gap in gender composition of the workforce. Only 25% of females in rural areas and 16% in urban areas are in the workforce, a clear indicator that much more needs to be done to mobilize women to join the workforce. This thesis subscribes to the view that local employment opportunities that respect individual aptitude could combine to provide the impetus to greater participation of women and gender parity.

IX. Coping With The Challenge Of Generating Employment In A Time Of Change

Livelihoods of people, particularly those of the poor, are changing at an unprecedented pace. As agriculture and other traditional sectors are undergoing crisis, many other livelihoods in the villages which are dependent on these are also undergoing rapid changes and many of them are declining. Some people are still dependent on those dying livelihoods and some others are moving away from them and are learning new skills like using computers, driving, automobile and electrical mechanism etc. With globalisation, most of the skills that are learnt today are becoming irrelevant tomorrow as new technology from across the world is penetrating the market. Hence there is a great need for people to continuously learn new skills and update their old skills.

Employment, as we all know, depends on the skill of the persons seeking employment, resources available in that particular area and the environment/ecological conditions, apart from other factors. Some people find employment all through the year and some others suffer from irregular employment. Some receive higher wages for shorter durations of work whereas some others receive low wages even for long hours of work. The wages also depend on skill and nature of work. Employment can be increased by increasing the number of days of work within an existing livelihood or by adding new sources of income. However, adding new sources of income involves developing the skills required to take up those livelihoods.

The majority of the poor in India depend on their physical labour for employment. However, these people do not find employment all through the year. In some rural areas, there are no means of employment

available to manual labourers except during the rainy season. During lean seasons of work, many poor people tend to migrate to other places in search of work, where they live in dismal conditions. Lack of proper shelter, low wages, insecurity, ill health and under-employment are the major problems that these migrant people suffer from.

Some people remain in their own villages without employment causing them to go hungry and remain malnourished. As the skill level of the most of the labour in India is considered unskilled or semi-skilled by the market, they are not able to get employed and/or receive good incomes. To increase the number of days of employment, we need to understand their current employment situation in its variety of dimensions. In some cases, differences in several characteristics of employment can lead to households adopting different livelihood strategies. The analysis of employment can include various dimensions such as the timing and season of employment, match between the person's skill and employment, regularity of employment and the process of search, payments to be made to search for employment, organised versus unorganised nature of employment and, now more than ever, opportunities to learn newer technologies.

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