Challenges Beyond Schooling: Skilling Youth to Realise the Goal of Vocational Education and Training in India

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Abstract

India is one of the youngest nations in the world, with more than 54 per cent of the total population below 25 years of age. Five million youth join the labour force each year, looking for non-agricultural work. By 2030 (the terminal year to achieve the Sustainable Development Goals), substantial increase in the number of youth and adults who have relevant skills, including technical and vocational skills, will be required for employment. The current annual skilling capacity in India is inadequate to match the skill demands of the labour market, although many initiatives have been taken by the governments to reduce the skill gap. A radical change in the skill development landscape is taking place with the involvement of private sector under the National Skills Qualification Framework. The challenge for Vocational Education and Training (VET) is to address the skill demands of the youth and adults in consonance with the changes in the nature of work, advancements in technology and for providing education and skills for driving inclusivity and sustainable development. This paper discusses the challenges that the VET will face in promoting the agenda of achieving sustainable development goals by 2030 through innovative models of VET for youth skills development beyond schooling in India.

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Introduction

In India, skill acquisition takes place through two basic structural streams - a small formal one and a large informal or non-formal one. The formal structure includes: (i) higher technical education imparted through professional colleges in courses that last one year (certificate course), two years (diploma course) or a three-four year degree courses (ii) vocational education in schools at the secondary and higher secondary stage, (iii) vocational training in Industrial Training Institutes (ITIs) (these were earlier with the Ministry of Labour and Employment, but are now managed by the Ministry of Skill Development and Entrepreneurship), and (iv) apprenticeship training. Institutional training outside the school is mainly provided through a network of 13350 Industrial Training Institutes spread across India with a total seating capacity of 2.847 million in 126 trades. However, the current annual skilling capacity in India is inadequate to match the skill demand, with many initiatives un-aligned and suffering from lack of coordination (Mehrotra, 2014; MSDE Expert Group Report, 2016; MSDE National Skills Policy, 2015). The Institution based VET system has been slow to respond to industry's changing skills needs. The major reason has been the outdated curricula, infrastructure, and lack of trained VET teachers and instructors. The 68th round of National Sample Survey conducted during July 2011 to June 2012 reports that among persons of age 15 years and above, only 2.4 per cent had technical degrees or diplomas or certificates. Among persons of age 15-59 years, about 2.2 per cent reported to have received formal vocational training and 8.6 per cent reported to have received non-formal vocational training (NSSO, 2015). The situation is further complicated by the large number of States and UTs having different demographic situations and skill training needs, hence different skilling needs and challenges.

About 5 million persons enter the labour market every year after 2012 (Mehrotra, 2014). But this number will increase to 12 million youth between 15 and 29 years of age who are expected to enter India's labour force every year for the next two decades[1]. These youth have many more years of education than the agricultural workers who are leaving rural areas for urban jobs. While the latter being poorly educated can only be accommodated in construction work or traditional service

[1] The official labour force participation rate for men, which measures the proportion of the total male population in the labour force, stood at 55.6 per cent in 2011−12, unchanged from its level in 2004–5. For women, already scarcely represented in India's labour mar ket, the labour market participation in the same period dropped from 29.4 per cent to 22.5 per cent.

activities in urban areas, the youth will look for modern service sector jobs as well as employment in organised industry. With the current and expected economic growth, this challenge is going to only increase further, since more than 75 per cent of new job opportunities are expected to be "skill-based". Mehrotra *et al.,* (2013) estimated that the capacity for skill training that needs to be established by 2022 will be 200 million and not 500 million for vocational skills, which was projected in the National Skill Development Policy 2009 (MoL & E, 2009) nor 400 million as projected by the National Policy on Skill Development and Entrepreneurship 2015 (MSDE, 2015).[2]

India is expected to become the world's youngest country by 2020, with an average age of 29 years, and accounting for 28 per cent of world's workforce, turning the population burden of the past into a demographic dividend (UN Habitat, 2013). Youth[3] unemployment and youth skills development are the major agenda of the government of India. The Sustainable Development Goals (SDGs), as defined in "Transforming Our World- the 2030 Agenda for Sustainable Development" adopted by the UN Sustainable Development Summit on 25 September, 2015 aims to realise inclusive and equitable economic, social and environmentally sound sustainable development. The government of India is in the process of preparing a 15 year Perspective Plan which includes a 7 year strategy and a 3 year Action Plan. The terminal year of 2030 for the Perspective Plan was chosen because India stands in respect of the various targets included in SDG 4 (education). Target 4.1 of SDG 4 exhorts that by 2030, all girls and boys complete quality primary and secondary education, along with relevant learning outcomes. India achieved 97 per cent net enrolment rate at the primary level in 2007 (UDISE, 2010). Primary school enrolment has increased significantly and has led to rising demand for secondary schooling. Currently the gross enrolment ratio at the upper primary level for 11 to 14 year old children is at about 95 per cent. In addition, there has been a rapid expansion of lower secondary education (defined in India as grades 9 and 10). The gross enrolment rate in these grades has increased from 58 per cent in 2010 to 85 per cent in 2015, a very sharp increase within a matter of five years.

[2] Sectoral skill gap based on a nationally or sectoral representative sample of a rigorous nature do no t exist in India. That requires that the National Sample Survey Organization begin to conduct quenq uennial surveys assessing skill gaps. Without such regular surveys, there is no possibility of a Labou r Market Information System emerging in India.

[3] The National Youth Policy 2014 has defined 'youth' as persons in the age-group of 15-29 years.

Universalisation of lower secondary and higher secondary education is assured at this pace of enrolment growth, well before 2030. There is already gender parity at secondary level of enrolment in India, which is very unusual for India's level of per capita income. However, gender inequity in education, which is characterised by lack of access to and availability of gender sensitive educational infrastructure, materials and training programmes, as well as a high dropout rate amongst secondary school aged girls, is still a matter of concern and much efforts need to be directed to reduce the gender disparities in education. This is especially the case in skill development. One result of poor access to skilling for girls in India is the low female labour force participation rate, which has been falling for over two decades (Mehrotra and Parida, 2017; Mehrotra and Sinha, 2017).

The major drivers of skills demand, which include economic growth, expansion of primary and secondary education, urbanisation, demographic changes and global competitiveness call for higher-order competencies and employability skills that can use new technologies and perform complex tasks efficiently. The education system in India has not done well in responding to society's demands for learning, as learning levels of children completing schooling remain very low (ASER, 2014). In addition, there have been enormous challenges of skilling youth. The key obstacles and challenges have been the negative image and low aspirational value of Vocational Education and Training (VET) and the lack of coordinated efforts to integrate VET with general education for meeting the 21st Century skill demand for current and future labour market needs. The current formal education system does not focus on training young people in employability skills[4] that can provide them with employment opportunities.

Determining the supply and demand of skilled manpower in the labour market to bridge the gap between the two is a major challenge. We define skills of three kinds: cognitive ones (reading, writing, and numeracy); employability skills (teamwork, computing skills, and communication skills);

4 Employability skills are also sometimes referred to as generic skills, capabilities or key competencies. Employers consider that employability skills are as important as job-specific or technical skills. There are two facets to employability skills: generic skills (skills that apply across a variety of jobs and life contexts) and personal attributes (loyalty, enthusiasm, motivation and sense of humour). Generic skills are also known by other names, such as key skills, core skills, essential skills, key competencies (widely used in Australia, Germany, United Kingdom, European Union and OECD countries) and transferable skills.

and vocational skills (trade or occupation related). Poor quality education and training deny young people employment opportunities as well as the resultant earnings and improved quality of life. The demands of employers, at least in the formal economy are, such that they now expect learners to acquire relevant 21st Century skills (for example, critical thinking, problem solving, and creativity) before entering the workforce (Ertmer and Newby, 2013). The main skill development areas for low-skilled employees should, therefore, be generic skills, which include occupational health and safety, and information technology skills, whereas for highly skilled employees, the focus is on productivity and competence-building skill areas (e.g., technical and management skills, entrepreneurship development), and to the extent that they are undertaken at all, green skills. This applies to both manufacturing and service firms (OECD, 2013).

This paper is organized as follows: Section 1 examines India's National Policy on Skill Development 2015. It goes on to discuss the National Skills Qualification Framework (NSQF) which provides the overarching design for the rest of the country in VET. Section 2 discusses the skilling efforts taken by the government that goes into integrating the academic skills with vocational skills. Section 3 reflects on the targets under SDG 4 that discusses vocational education and deliberates on the importance of integrating soft skills and vocational skills into VET in achieving SDG targets. Section 4 discusses the new private sector trainers that have emerged in recent years, on account of government funding of a new institution, the National Skill Development Corporation (NSDC). Section 5 offers some sustainable solutions to address the challenges in skill development, which includes bringing changes in work based skills.

National Policy on Skill Development

The Government of India framed the National Policy for Skill Development and Entrepreneurship 2015 to meet the challenges of skilling at scale with speed, standard (quality) and sustainability. It aims to provide an umbrella framework to all skilling activities and align them to common standards and labour market demands. It also aims to bridge the existing skill gaps, promote industry engagement, operationalise a quality assurance framework, leverage technology and promote apprenticeship training. In the entrepreneurship domain, the policy seeks to promote entrepreneurial culture through advocacy and integration of entrepreneurship education as part of

the formal education. The policy encourages companies to spend at least 25% of Corporate Social Responsibility (CSR) funds on skill development, seeks to introduce fee paying model along with Skill Vouchers, and suggests setting up a Credit Guarantee Fund for skill development to meet the specific needs of the learners.

The non-formal and the informal training sector accounts for almost 90 per cent of the skills training in India, as the skills needs of out-of-school youth, early school leavers, and adults are best addressed by informal sector training providers. According to the National Policy on Skill Development and Entrepreneurship 2015, all formal and non-formal skill training programmes will have to align with the NSQF by December 2018. This is an extremely ambitious agenda, both in its timeline as well as in the assumption that competent vocational trainers would be available to train people as per the National Occupational Standards (NOSs) set by the Sector Skill Councils (SSCs).

SSCs are autonomous bodies, incorporated either as Societies under the Societies Registration Act, 1890 or under Section 25 as Company, under the Company's Act, 1956 with the objective of bringing about necessary connectivity between the education and training providers and industry for development of NOSs and conducting training and assessment of students/trainees (Mehrotra, 2016). The process so far has been understandably slow amongst the various stakeholders including SSCs, as there is little understanding about Qualification Packs (QPs) and NOSs. A National Quality Assurance Framework (NQAF) has been developed to improve the consistency of outcomes linked to certification and consequently improve the status of skills training. The QAF for certification and assessment aims at setting minimum standards and providing guidance for effective, valid, reliable, fair and transparent assessment within the context of the NSQF. NOSs developed by the SSCs are examined and reviewed by the National Skills Qualifications Committee (NSQC) and thereafter conferred the status of 'National Standards'.

Skilling is being increasingly integrated in higher education with community colleges under All India Council for Technical Education (AICTE) and University Grants Commission (UGC) and degree colleges affiliated to universities offering NSQF-aligned [5] vocational courses and Bachelor of

[5] The NSQF consists of 10 levels, with level 1 representing the lowest and level 10 the highest level of complexity. It provides an opportunity for enhancing the quality assurance and recognition of skills gained through formal, non-formal and informal learning. As per the NSQF implementation schedule, after the third anniversary date of the notification of the NSQF (i.e. after 27th Dec 2016), government funding would not be available for any training/ educational programme/ course that is not NSQF

Vocational Education (B.Voc.) degrees. These courses are being aligned to a credit framework to provide horizontal and vertical mobility, which was not available to trainees in Technical and Vocational Education and Training (TVET) hitherto. Community Colleges have been set up to provide aspirants with opportunities to avail of higher education and to bring them at par with appropriate NSQF levels through bridge courses. Community Colleges are located to facilitate easy access to underprivileged students and such colleges could either be established as affiliated colleges of universities or as entirely autonomous institutions. Community Colleges serve as a crucial point of access to higher education, especially for those who otherwise would not be able to go for it due to several reasons. There are 248 Community Colleges and 187 B.Voc. degree institutions approved by the University Grants Commission (UGC) for offering skill based vocational courses. The UGC has set a target of covering 37,500 learners in 500 institutions between 2014-15 and 2018-19 in Community Colleges.

Aligning Skilling Efforts to Sustainable Development: New Framework and New Institutions

Development cannot be sustainable from a jobs and labour market perspective unless non-agricultural jobs grow in India. In the fastest growing large economy in the world, jobs will grow, but since with GDP growth the product and technology mix will also diversify, it is critical that the labour force is not only educated but also vocationally trained. India is one of the youngest nations in the world, with more than 54 per cent of the total population below 25 years of age (MSD & E, 2015). The share of youth in total population will be around 32 per cent in 2030. The government projects the labour force to increase by 88 to 113 million people between 2010 and 2020, mainly through the entrance of the young into the labour force who tend to be better educated. Mehrotra and Parida (2017) consider this estimate to be much too high for new entrants, since the Government of India seems to believe that the rate of increase of new entrants to the labour force will be same as in the very unusual period of 1999-2000 to 2004-05, when 12 million joined the labour force every year: never before nor ever since has such a large increase materialised. In fact, the rate of increase,

compliant. All accredited training providers would need to comply with this requirement of the NSQF, failure to do which would lead to their de-listing by the NSDA or the concerned Ministry.

as estimated by Mehrotra and Parida (2017) should be no more than 2-3 million per annum between 2011-12 and 2019-20, and the government's Labour Bureau Annual Surveys (2011-12 to 2015-6) have proven their estimate to be correct, as only 2.5 million have been joining the labour force per annum since 2011-12.

Formal VET delivery systems tend to be largely school-based and driven by a rigid supply-side curriculum and rote learning methods. In most of the cases, linkages of schools with the Industry, necessary for providing on-the-job training and specialised training was lacking, which generally resulted in lack of adequate practical skills required by the employers. To promote lifelong learning, the government is now promoting skill development programmes outside schools.

There are 21 central government ministries that offer skill development courses through various schemes and programmes, which are being brought onto the NSQF platform, but the problems of coordination across min7stries of central government still remains as there are different norms with regard to the eligibility criteria, duration of training, learning outcomes[6], and monitoring and tracking mechanism. Government is introducing new regulations, additional compliance requirements and a range of programmes that require an appropriate response from the VET providers and industry. The actions of government are driving changes in the knowledge and skill requirements of most industry sectors. Most of the schemes and projects of VET, however, aims at achieving certain numerical targets of number of youth trained, and not the aspirations of individuals or labour market needs. It results in beneficiaries dropping out of the vocational courses or not benefiting appropriately from the training. A high participation rate in educational programmes along with the motivation of individuals, as well as subsequent utilisation of the acquired skills in working life can be expected only if educational activities are designed in a way that they meet the needs of the labour market but also of individual participants (Pilz, 2016).

A problem that all South Asian TVET systems, including India face is the lack of articulation between lower and higher level TVET institutions (Mehrotra, 2015). Schools have not been able to meet the needs of highly skilled workers, even in advanced countries, as opportunities for

[6] Learning outcomes are defined in the European Qualifications Framework (EQF) as 'statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined as knowledge, skills and competences'.

specialised and hi-tech training are very few due to lack of industries around the schools and also the syllabi are too broad to meet the requirements for handling advanced and new technologies (Mehrotra, 2012). Integration of long separated tracks of academic and vocational education is taking place under the NSQF. Since the introduction of the NSQF, vocational subjects have been introduced from secondary stage (Grades 9 and 10) in most of the States/ Union Territories for the first time in India's history. It was earlier available only at the senior/higher secondary level (Grades 11 and 12). The curriculum is oriented to measure the amount of the knowledge and skills of learners through outcome based or competency based education and training. The learning outcomes are aligned to nationally recognised occupational standards, which encompasses the cognitive and vocational skills. The qualifications obtained in schools, as well as in ITIs are now being linked to formal educational qualification at appropriate level through learning outcomes and suitable bridge courses for providing academic equivalence and vertical mobility. The existing vocational courses in ITIs and Polytechnics are being aligned to the emerging competencies in the market and the requirements of the NSQF.

Towards achieving the TVET goal and targets of the SDGs

The Target 4.3 of SDG 2030 calls upon nations to ensure access to women and men to affordable quality technical, vocational and tertiary education, including University. Similarly, the Target 4.4 exhorts nations to substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship. Despite significant improvements in increasing primary school enrolment in India, such improvements have not necessarily been followed by an equivalent transition to secondary education, vocational training, non-formal education or entry into the labour market, especially for girls and young women. The number of young people joining the labour force in India every year is presently roughly 5 million, but expected to increase sharply to 12 million per annum by the year 2030. Therefore, the number to be skilled has to increase accordingly. Greater awareness on the importance of TVET in addressing skill needs of the youth and adults is to be generated to meet target 4.4 of SDG. In addition, indicators for measuring the success of the TVET programmes in terms

of placement and entrepreneurial growth will have to be developed to meet the global agenda of linking TVET with job market and entrepreneurial activities.

Capacity development programmes to promote life-long learning and sustainable development through VET are needed for translating SDG Goal 4 into action and for achieving the specific targets of equitable, inclusive and quality education. UNESCO's recommendations concerning TVET provides for an integrated and holistic approach to promoting education and training that develops a broad spectrum of knowledge, skills and competencies for work and life. Sustainable economic growth will pave the way for societies to create the conditions that allow people to have quality jobs. The SDG 4 targets for 2030 call for ensuring the completion of primary and secondary education, and guaranteeing equal access to opportunities for access to quality technical and vocational education for everyone. VET, therefore, should aim at ensuring substantial increase in the number of youth and adults who have relevant skills, including technical and vocational skills for employment, decent jobs and entrepreneurship. It should aim at eliminating gender disparities and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations. Introduction of VET programmes that integrate various kinds of soft skills and vocational skills with skills for environmental responsibility (e.g. waste management), economic responsibility (e.g. financial accountability), and social responsibility (e.g. gender neutrality, dignity of labour and health) will have to be introduced to promote quality VET at all levels.

Private Sector Participation to Meet Skill Demands of the Workplace

A radical change in the skill development landscape is taking place in India with the involvement of private players and a paradigm shift from fully public funded to private funded programmes under the NSQF. The 12th Five Year Plan (2012-2017) document observes that the skill development programmes in the past are run mainly by the government, with insufficient connection with market demand. It has called for an enabling framework that would attract private investment in VET through Public-Private Partnership (PPP). Involving the private sector in VET has for decades been a successful part of the training systems of many countries. For example, the VET

system in Germany is characterised by much higher proportion of youth participation, intensity of private participation and a basis in legislation (Mehrotra *et al.* 2014).

To foster public-private partnerships, the government of India has set up institutional capacity in the form of the NSDC and Sector Skill Councils (SSCs). These have spawned private vocational training providers (VTPs) or Training Service Provider (TSPs) on a for-profit business model. NSDC, which came into existence only in 2010, has facilitated the setup of 2,856 skill development centres through its 203 training partners in the private sector, including 1148 mobile training units which are operating in 350 districts (covering 27 States and 4 Union Territories) or around half of India's 641 districts. These mobile units consist of fully equipped classrooms on wheels with laptops/tablets powered by solar panels to provide technology enhanced training in geographically diverse or remote areas. Around 14,00,844 people have been trained. The NSDC also operates a scholarship to encourage poor youth to take up vocational training.

The National Skill Development Agency (NSDA), now a part of the newly formed Ministry of Skill Development and Entrepreneurship, was created in June 2013 to coordinate and harmonize skill development efforts across various stakeholders. The Ministry works primarily through the NSDA, National Skill Development Corporation (NSDC), and the Directorate of Training (erstwhile Directorate General of Employment and Training of Ministry of Labour and Employment). The role of the new Ministry involves coordinating and evolving skill development activities, mapping of existing skills and certification, and developing industry-institute linkages, among others. The government is entering into partnerships with private players in these high growth sectors to promote innovative approaches in skill development.

The problem with the NSDC-funded VTPs is that they have mostly provided training for 3-4 months to each trainee (i.e. 300 hours or so), and then expect that they will find stable jobs in the organised sector of the economy. While the numbers trained under this scheme have been large, but due to lack of industry experience, the quality of training has been poor, and even more worrying, as it has not been driven necessarily by the demands of industry. This form of short-term training has neither improved the employability of youth trained nor met the needs of industry (see

an expert group report on the website of Ministry of Skill Development and Entrepreneurship, www.skilldevelopment.gov.in/report-SSC.html).

The SDG 8 aims to promote economic growth, full and productive employment and decent work for all. But to ensure trainees usable employability skills in a supply-driven, government-financed TVET system (which is appropriate characterisation of India's TVET), greater autonomy would have to be given to VET Institutions to design their own programmes and use flexible delivery models, with the involvement of business and industry. The direct involvement of industry will have many benefits. There is a need to focus on structuring, organising, and sequencing information to facilitate optimal processing, active involvement of the learners in the learning process and meta-cognitive training in the skill development programmes so that the learners can get significant exposure of the workplace related skills. Training quality can be enhanced by making provisions for developing well-trained teachers and instructors with pedagogical skills and experience from the world of work. The integration of ICT and technology-mediated teaching and learning into training provision can also contribute to quality delivery of skills. Training for high-quality skills is also closely linked to the building of strong, professional management and leadership capacity as well as a suitable quality monitoring and evaluation mechanism to drive the entire system (Afeti and Adubra, 2014).

In most developing countries formal VET systems coexist with education and training outside the formal system with diverse socio-economic contexts. In India too, about 90 per cent of the working population is employed in the informal or unorganised sector of the economy. People, especially those who are traditionally burdened with social and economic responsibilities within the household often prefer the informal training, which offers flexibility and participation in terms of entry and the period of training. The unorganised sector contributes more than 60 per cent share to the GDP and people working in the unorganised sector need a system for recognition of prior learning so that they get an opportunity to obtain relevant certification of their competencies acquired through informal learning and enter the formal education system, thus becoming lifelong learners. The non-formal VET system is fragmented and largely uncoordinated. Non-Government Organisations (NGOs) and specialised VET institutions are offering short duration vocational courses,

without proper curriculum and adequate training of trainers. A very large number of workers in the informal/unorganised sector have acquired skills through experience or other non-formal learning channels. However, due to lack of formal certification, they are unable to properly market their services. Those who are traditionally burdened with social responsibilities within the household, often prefer non-formal training, which offers "flexibility in terms of entry and period of training" and also enable them to "earn while they learn" (Mehrotra and Sacheti, 2009). However, the 'technical' skills imparted to youth through the system of informal vocational training does not provide them the "life-long learning" opportunity which is necessary to bring about necessary behavioural or attitudinal changes and to make them aware of their social rights. They may wish to study part-time or at a flexible pace; their home and/or workplace may be away from the learning centre, so distance learning options may be attractive.

Addressing Challenges of Sustainable Development through Changes in Work based Skills

Work-based learning encompasses a diversity of arrangements, including apprenticeships, on-the-job training, internships and work placements that form part of formal vocational qualifications. Managed effectively, it delivers benefits for all participants and contributes to better labour market and economic outcomes (OECD, 2014). Work experience is a critical component of preparing youth for transition to the world of work. The discourses of 'learning in the workplace' (Marsick and Watkins, 1990), 'work based learning' (Boud and Solomon, 2001) and 'informal learning' (Garrick, 1998) all promote learning that takes place at and through work and learning unmediated by educational institutions or practitioners (Chappell, 2003). Potential benefits for youth who participate in work experiences include: 1) gaining career readiness skills including the "employability skills" that employers look for in entry level workers; 2) increasing one's knowledge of specific occupational skills and workplace settings; 3) establishing a work history and connections with employers that can aid in future job searches; and 3) developing an understanding of different occupations in order to make informed career choices.

However, of all registered enterprises in India only 16 per cent were providing in-firm enterprise-based training in 2009 (according to a World Bank survey). By 2014 that share had risen to 36 per cent of firms. But that means that two-thirds of firms are not providing in-house or in-firm

training to their staff. In countries that had successful industrial policies (e.g. in East and South east Asia, see Mehrotra, forthcoming), and in which manufacturing accounts for a much higher share of employment and output than in India, the share of firms that provide in-firm training is much higher.

Critical to ensure Recognition of Prior Learning

Half the workforce of 490 million is either illiterate or has primary or less education. Adults with limited formal education can re-enter education by validating the competences they have acquired through work. This requires that India will have to put in place mechanisms for Recognition of Prior Learning, which are not in place today. This requires that 3-4 month long courses are offered to those who are already in the workforce, though had earlier dropped out without any formal certification. They may be lacking foundational cognitive skills, and RPL must ensure that this gap in their education is filled. Second, RPL courses should ensure that the soft skills or transferable (or soft) skills that they would never have had the opportunity to be trained in are imparted to them (e.g. computing skills, team work, communication skills) – depending upon their field of work. Finally, they should be given a chance to upgrade their vocational skills. This combination can constitute a course of 3-4 months that should entitle them to a RPL certificate.

This will have have particular relevance to potential migrants with skills and qualifications formally and informally to enable them to migrate, within the country or even abroad. SDG Target 4.6 calls upon all youth and substantial proportion of adults to achieve literacy and numeracy. Non-formal education programmes, often provided through youth and community based organisations in India, facilitates the learning of knowledge and skills, especially for employment.

Market demands for sustainable products and services, adopting to new sustainable practices and developing the competence of employees in new and emerging areas for green economy will bring about necessary changes in VET provisions. Greening the curriculum, which refers to the infusion of environmental and sustainability perspectives into the curriculum at all stages could help students to understand environmental science and related social issues to make well-reasoned and ethically appropriate environmental decisions across different areas at workplace. The demands of green products and services, energy efficient building, meeting

renewable energy targets, waste management, water management and emission control requirements will have an overall impact on business activities and skill development ecosystem. Green job profiles should form the basis on which new curricula and new teaching methods should be built. Old curricula should be reviewed and re-oriented to promote green economy. The Government should develop a robust framework and guidelines for education, with a focus on learning outcomes, so as to achieve the objectives of equity with sustainable development.

Generic skills, which apply across a variety of jobs and life context, are important in all aspects of life. These are skills that employers expect workers to have from day one. These include communication skills, interpersonal skills, decision making skills, and lifelong learning skills. One promising approach is to integrate these soft skills with vocational training so that these skills are acquired in meaningful practical contexts (OECD, 2014). The National Policy on Skill Development and Entrepreneurship 2015 provides directives to include basic modules of computer literacy, finance, language and generic skills like etiquette, appreciating gender diversity in workplace, building positive health attitudes and social and life skills in skill development programmes so as to enable youth to be employable and market ready. The curriculum should be so designed as to develop skills of the levels and quality acceptable to the employing agencies; the acid test of effectiveness of the curriculum will lie in the employability of the learner. Increasing the employability of people will help them to get entry-level jobs, innovate, and adopt new technologies. It will promote labour adaptability to changing skill needs, new tasks and job roles, improve productivity, and labour mobility in search of new avenues and opportunities. Increased attention to improving participation rates of young people, particularly marginalised youth, is needed to ensure that they acquire the knowledge, capacities, skills and ethical values needed to fulfil their role as agents of development, good governance, social inclusion, tolerance and peace. However, gender disparities in non-formal training do exist. According to the 68th round of NSSO, nearly 1.6 per cent of males in rural areas compared to 0.9 per cent of females and in urban areas, nearly 5 per cent of males compared to 3.3 per cent of females received formal vocational training. The situation is complicated by the fact that half the workforce of 490 million is either illiterate or has primary or less education. Another 16 per cent of the workforce has only 8 years of education, which means the number of adults that need vocational, cognitive and non-cognitive skills has to expand, if these

youth are to become employable in the non-agricultural workforce. The Target 4.5 of SDG 2030 exhorts countries to eliminate gender disparities in education and ensure quality vocational training for youth. The only way forward for this to happen rapidly is through the recognition of prior learning (RPL) on a vast scale. Recognition of Prior Learning is a process of certifying pre-existing skills and knowledge, used in many Organisation for Economic Cooperation and Development (OECD) countries to make the skills of prospective and current students visible to both education and training institutions and employers (OECD, 2014). It encourages an individual to return to education through the certification of relevant skills, and associated course exemptions. It is, therefore, important that training providers should offer RPL as part of the range of services offered to adults (OECD, 2014). Some efforts in this direction have been made but quality of RPL efforts will need to improve. The NSDA has launched pilots on RPL in four sectors - Agriculture, Domestic Work, Healthcare and Gems and Jewellery. A separate pilot for the construction sector has also been initiated by the Ministry of Skill Development and Entrepreneurship. However, clarity in the role and functions of the various stakeholders is needed for greater acceptance and impact of RPL. Effective implementation of RPL will help to promote transition for further and supplementary education and training.

Conclusion

India is one of the fastest growing economies in the world, but its growth can only be sustainable if it has the skills to drive it forward. By 2030, substantial increase in the number of youth and adults who have relevant skills, including technical and vocational skills, will be required for employment, decent jobs and entrepreneurship. The long term relationship between industrial and sustainable development for meeting economic, social and environmental goals can be achieved through partnerships between various government and private agencies. It will require training of youth in different content and new skills through formal and non-formal VET programmes with curriculum designed to suit the requirements for developing skills for sustainability. The creation of the national skills qualifications framework with level descriptors and clearly defined national occupational standards and benchmarks will lead to quality assurance in both the formal and informal training sector. General awareness about sustainability issues and the generic skills that

may be applied across all occupations needs to be improved for ensuring engagement of all the stakeholders. The implementation of an integrated system of formal, non-formal and informal VET sectors still remains a challenge in India, and incorporating the concept of lifelong learning and environmental sustainability would require a comprehensive conceptual framework to promote industry engagement in green skills and economic growth through effective implementation of VET programmes.

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