

includes debate by practitioners and academicians on a contemporary topic

# *Preparing a Globally Competitive Skilled Workforce for Indian Economy: Emerging Trends and Challenges*

Sunita Sanghi, MV Subbiah, RCM Reddy, Subhalakshmi Ganguly, Gautam Sen Gupta, Jeemol Unni, Sudipa Sarkar, Ankur Sarin, Vijaya Sherry Chand and Mukul Vasavada (Coordinator)

## INTRODUCTION

**Mukul Vasavada**

**E**conomic reforms over the last two decades have meant increased global exposure and a sharper focus on competitiveness for Indian industry. These, in turn, have drawn our attention to the question of how globally-competitive and skilled our industrial workforce is. Prior to the economic reforms, India, as an exporter, was by and large content with exporting raw materials and products with low value addition. Export of finished goods was supported through subsidies and other concessions. India's abundant labour force was perceived to be semi-skilled or unskilled, with low cost and low productivity as its defining features. However, over the last two decades, India's manufacturing and service sectors have grown, despite the reduction of trade barriers and concessions. It is intuitive to expect, therefore, that India's workforce too would have grown in quality as well as in numbers.

In this colloquium, we address a few of the issues that any attempt to develop the workforce has to contend with. Our focus is limited to the vast training infrastructure comprising the industrial training institutes (ITIs) and other training centres serving the organized and unorganized sectors. While the workforce also consists of engineering and technology degree and diploma holders, our attention is on the non-diploma/degree holders.

The trigger for this colloquium was the increasing debate in the public domain about a perceived 'skill gap'. The industry's view seems to be that there is a significant deficit in the quality and numbers when we talk of the supply of the skilled workforce. Therefore, the argument goes, India needs to build more capacity and improve the quality of its training, if its workforce is to be well trained to meet global standards. On the other hand, recent evidence on the relative stagnation of labour force wages, while non-labour force remuneration has shown growth, is disturbing, since it may indicate that we are quite happy to put up with a low-skilled labour force. In addition, evidence on whether the workforce passing out of the thousands of our industrial training institutes is able to find reasonably stable employment, with appropriate working conditions, and reasonable employment, social and welfare security, is equivocal.

### KEY WORDS

Skill Development

National Skills Policy

Vocational Education

Public-Private Partnership

Industrial Training Institutes (ITIs)

Indian Economy

Graduate Labour Market

Labour Market Information Systems

Social Justice

Worker Welfare

Eleventh Five Year Plan

Centres of Excellence

Informal Employment

Unorganized Sector

Leadership Development

There have been several recent initiatives, especially in the state-run ITI sector, aimed at enhancing the quality of the training provided to our industrial workforce. New ideas and concepts have been introduced into our infrastructure; multi-skilling, flexible and modular training programmes, centres of excellence in selected ITIs, public-private partnerships for industrial training, are all recent entrants into the discourse of training. They also indicate a certain seriousness on the part of the state to improve the quality of the training that the public infrastructure provides. Adding to the seriousness is the fact that the government has mobilized public funds to the tune of about Rs. 5,000 crore to improve the training infrastructure and environment at government-run ITIs. Such initiatives are bound to help many sectors, including manufacturing, which is expected to be the backbone of the next phase of our growth.

While these initiatives are laudable, the scale of the task in front of us is indeed daunting. We have set for ourselves a massive target of creating a skilled workforce of 500 million, by 2022. Our first contribution, “Skill Development for Employability,” by Sunita Sanghi, acknowledges that meeting this target by 2022 poses a huge challenge. Sanghi presents an overview of the various government initiatives and schemes in recent times, and notes that much progress has been made. However, she also identifies a few critical challenges and sets out a plan of action to overcome these challenges while pointing out that strategies for funding such a massive programme as we have envisaged have to be thought through carefully.

Building further on this theme, M V Subbiah, analyses the nature of skill gap. He first presents the initiatives taken by the government in the last few years, starting with the National Policy on Skill Development, and going on to the three-tier institutional structure that we now have—the National Council on Skill Development, the National Skill Development Coordination Board, and the National Skill Development Corporation (NSDC). Such focused attention has raised the consciousness about the need for developing a quality workforce. He points out that industry needs to play a stronger leader-

ship role in addressing this task and recommends Sector Skill Councils (SSCs), which are employer-driven national partnership organizations that bring together industry, labour, and academia, as the way forward.

RCM Reddy and Subhalakshmi Ganguly share the experiences of Infrastructure Leasing & Financial Services (IL&FS) Skills in responding to the challenge of meeting the workforce demand. IL&FS Skills works through Public-Private Partnerships to deliver vocational training to nearly 200,000 youths in over 18 states. They identify three key challenges that need to be addressed: commercial sustainability, the need for greater industry involvement, and the challenge of scale.

Gautam Sen Gupta identifies the low value attached to vocational training, in contrast to academic education which is accorded high status, as a problem to be overcome. He calls for “a change in the mindset” and a “social revolution” if the social valorization of skill training is to improve. He also touches upon the challenge involved in improving the credibility of our assessment and certification systems, and sees the Sector Skills Councils as one way out. He echoes Sanghi’s concern about funding training activities, and also calls for attention to training effectiveness and appropriate collaboration between industry and the training establishments that exist at present.

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Jeemol Unni and Sudipa Sarkar shift our attention to the ability of the higher education system to produce the kind of skilled workforce that India needs. They focus on the graduate labour market, and find that the demands made by jobs in specific occupations are calling for change in the quality of the labour supply – what is commonly called the skill gap or mismatch between demand and supply of skills.

How inclusive are the policies and initiatives for closing the demand-supply gap for the skilled workforce? Ankur Sarin argues that the use of public funds for the national task of skill development imposes on society a responsibility to consider social justice and inclusive development as criteria to assess the outcomes of such investment. His paper is a counterpoint to the dominant

rhetoric on initiatives like the National Skill Development Corporation. He raises a question about why public funds should be put into training youth for industries where the prospects for workers (as measured by wages) are worsening. The answer is a circular reasoning – projections are contingent on the future cost structure of the industry, which in turn can be externalized based on government policies; thus depending on projections which ultimately depend on contingent government support, do not form a sound basis for choice of sector decisions. He points out that the interests of *all*, the workers and the owners of capital, should find a place in the discourse on skill training. He calls for a clear shift to welfare of workers as the primary objective of vocational training. This is needed both from a social justice perspective and the more pragmatic view of protecting ‘skill development’, which is now high on the public policy agenda.

Vijaya Sherry Chand and Mukul Vasavada draw on their experience of designing a training programme for principals of government-run Industrial Training Institutes (ITIs) in India to stress that attempts to develop leadership capabilities have to be located in the emerging context of employment of ITI graduates, and in the rhetoric of

excellence that has come to dominate training policy initiatives. The leadership at the institutional level has

to be able to interpret the implications of the dominant trends towards a strengthening of the unorganized sector, and informalization of employment in the organized sector, for their practice. The demands being made now include a greater market-orientation and an ability to work smoothly with local industry. In addition, the rhetoric of excellence has been dominated by a narrow interpretation of the concept, so much so that ITIs which are located in non-industrial or socio-politically sensitive contexts face a tough challenge in meeting the demands placed on them.

Put together, the contributions offer an opportunity to the reader to obtain an understanding of the complex situation and the factors affecting the Indian workforce. They raise important issues for the planners and policy makers to consider and at the same time offer some insights to those who wish to engage with this sector. We leave it to the readers to form their views on the challenges we face, as the efforts to prepare a globally-competi-

tive workforce of 500 million by 2022 gather momentum. 

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## Skill Development for Employability

Sunita Sanghi

### CONTEXT

Skill Development is critical for enhancing the employability of the growing young population and realizing inclusive growth. For India to enjoy the fruits of demographic dividend and to make it the Skill Capital of the world, there is an urgent need to have a relook at the skill strategy *vis-à-vis* market requirements. As

per the latest NSS survey, only about 10 per cent of the labour force in the 15-59 age group is vocationally trained (2% formally and 8% informally); 50 per cent has extremely low level of general education – about 29 per cent being illiterate and another 24 per cent having education up to primary level; and only about 17 per cent having higher level of education including higher sec-

ondary, diploma/certificate, graduate and post-graduate qualification.

The low level of education in the labour force, particularly among those employed in agriculture makes their movement into non-farm activities extremely difficult except in low-paid contract/casual labour in the construction sector. Employment generation during the period between 2004-2005 and 2009-2010 corroborates these facts. Of the total 2 million jobs created in the 5-year period, more than 65 per cent have been in the construction sector alone. The fallacy of high growth process leading to structural transformation in employment is proving to fail in the Indian context. It is a paradoxical situation where on the one hand, jobs are available, but there is a shortage of suitably skilled people, while on the other hand, there is unemployment among the youth. The phenomenon of educated unemployed in a fast-track economy is peculiar to India. According to the 2005 NASSCOM-McKinsey World Institute study, over 75 per cent of engineering and 85 per cent of arts, science, and commerce graduates in India are unemployable. Neither their education is up-to-date, nor do they acquire marketable skills during their three-four years in college. This has implications for factor productivity, particularly labour. Sustenance of factor productivity requires improvement in the educational and skill levels of the workforce. In other words, the realization of the full potential of the demographic dividend depends both on upgradation of skill levels of the existing as well as new entrants to the workforce and generation of decent non-farm job opportunities. The skill strategy needs to take into account high dropout rates in the education space, low employability of the skilled, low enrolment in the vocational education, and also low levels of in-service training. By setting for itself a huge target<sup>1</sup> of creating 500 million skilled manpower by 2022, India has, posed a huge challenge before the policy planners.

<sup>1</sup> Target set by National Skill Development Policy, 2009.

## POLICY PERSPECTIVE

Realizing the need for continuous upgradation of skills of its labour force/workforce, the Government of India initiated the Coordinated Action on Skill Development in 2008, aimed at an appropriate policy formulation; synergizing efforts of different ministries/department in the skill field to achieve efficiency of expenditure, and catalysing private sector participation. For this, a three-tier governance structure has been put in place, viz., PM National Council on Skill Development for Policy Formulation, supported by the National Skill Development Coordination Board for coordinating the efforts of different Central Ministries/Department undertaking skill work, and National Skill Development Corporation for fostering private sector efforts. The three-tier structure has laid the institutional foundation for a more proactive role of public (Centre plus States), private, and civil society interactions and interfaces for harnessing the benefits of demographic dividend. This has made the issue of skill development an important agenda for the Government at the Centre as well as those in the States.

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The PM Council on Skill Development has laid down core operating principles and operating strategy for achieving the target of 500 million skilled manpower by 2022 which focuses on high inclusivity besides making skill system dynamic to adjust to the changes in demand. The National Skill Development Policy formulated in the year 2009 emphasizes on policy coherence, inclusivity, improvement of quality, and employment outcome to achieve the massive ambition of skilling and achieving inclusivity. The target has been divided among the 20 odd Ministries/Departments including NSDC .

The policy provides for framework for expanding the outreach equitable access to skill development programmes by all irrespective of any divide; ensuring quality and relevance of training; linkage between school education and skill development initiatives; and mobilizing adequate investment for financing the skill development projects. The focus of the policy is to cater to the requirements of the bottom of the pyramid who con-

stitutes about 80 per cent of the workforce (dropouts from education space).

A closer look at the current infrastructure in the government and the private sector reveals that there has been a substantial increase both in the physical infrastructure as well as updation of course curriculum. During the Eleventh Plan, the number of Industrial Training Institutes, both public and private, has increased from about 5,000 to more than 9,000 and Polytechnics have increased to about 1,900 with 300 community polytechnics catering to the school dropouts or persons with prior learning. However, the geographic distribution of the infrastructure remains skewed for more than 60 per cent of the training infrastructure catering to about 53 per cent of the population as against 33 per cent of the institutional structure supporting 50 per cent of the population.<sup>2</sup>

The Government of India has taken a number of initiatives to improve the outreach of training facilities to those who are not in the education stream, i.e., school dropouts and those working in the unorganized sector, both in terms of new infrastructure and diversification in the courses to suit their needs. The modularity in skills has been adopted as a solution for expanding the outreach which has enabled availability of short duration courses to prospective trainees for enhancing their capacity. The Ministry of Labour and Employment has initiated a Modular Employable Skill Programme, which offers short duration courses in 60 sectors covering 1,402 modules.<sup>3</sup> So far about 13.58 lakh persons have been trained under the scheme. For improving the quality of training, the private sector has been co-opted through participation in the Institute Management Committee (IMC) constituted for undertaking upgradation of ITIs and creation of Centres of Excellence for the multi-skilled workforce. An interest-free loan of Rs. 2.5 crore is provided to IMC for the upgradation work.

<sup>2</sup> Eleventh Five Year Plan Document (2007-2012).

<sup>3</sup> Annual Reports of Ministry of Labour and Employment.

In addition to providing skill development opportunities to school dropouts through modular courses, polytechnics have also been diversified to include courses in electronics, computer science, medical lab technology, hospital engineering, etc. The Industries Chamber, such as CII, FICCI, and PHD Chamber of Commerce and Industry are also associated with the setting up of polytechnics and adopting other training institutes. The Government is also emphasizing on apprenticeship training both for Trade Apprentices from ITIs and Graduate Trainees from higher educational backgrounds. However, the progress in apprenticeship training

is slow compared to the countries like Germany and China. This could perhaps be attributed to the engagement of 86 per cent of the workforce in the unorganized sector which is outside the purview of the Apprenticeship Act. There is a need to involve the micro, small and medium enterprises in the Apprenticeship Programme.<sup>4</sup>

For pre-employment training, besides ITIs and Polytechnics, focus is also laid on competency-based vocationalization of school education. Besides these, different programmes are implemented to cater to the requirement of the specific Target Groups by different Central Ministries/Departments. The Ministry of Rural Development has taken certain initiatives for empowering the rural youth

which constitutes a huge percentage of the total population and the bulk (70%) of the demographic dividend.<sup>5</sup> Programmes such as National Rural Livelihood Missions Special projects for placement is linked to skill development of rural BPL youth; *Ajivika* focuses on harnessing the capability of poor; *Himayat* is a capacity building programme for youth of J&K; and *Parvaaz* for the Minority BPL Youth. Some sectoral ministries like the Ministry of Women and Child Development, Tourism, Agriculture, and MSME are also implementing programmes for youth in their respective sectors.

<sup>4</sup> Annual Reports of Ministries of Human Resource Development, Micro, Small and Medium Enterprises, Women and Child Development.

<sup>5</sup> Annual Reports of Ministry of Rural Development.

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The paradigm shift in the skill development strategy during the Eleventh Plan also focuses on promoting involvement of private sector both in enhancing capacity in the existing institutions as well as in creating additional capacity. NSDC is fostering the public-private partnerships by promoting Sector Skill Councils (SSCs) and extending financial support through loans grant and equity participation.<sup>6</sup> These SSCs, by bringing together all the stakeholders, viz., industry, academia, and training institutes, would facilitate laying down national occupational standards for different levels of jobs and help in formulating certification and accreditation norms. They would also help in assessing the skill requirements and suggest ways to filling the demand-supply gap. So far 13 SSCs have been set up.

### GAPS AND CHALLENGES FOR SKILL STRATEGY

Although there has been huge stress on developing skill strategy with emphasis on appropriate governance infrastructure, yet there are challenges in the skill space requiring attention so as to achieve the prime objective of inclusivity particularly when faced with geographical and demographic diversity across the country. The need is not only to train the workforce to meet the requirements of different sectors but also to create link between the skilled manpower and quality jobs.<sup>7</sup> Some of the issues and priorities that merit immediate attention are in the following areas:

- Reaching out to the labour force/workforce in the unorganized including informal sector that constitutes about 92 per cent of the workforce while adopting innovative projects involving grass-root organizations such as *Panchayati Raj* institutions and NGOs.
- Building on the potential of modular employable skills programme which guarantees employability
- Encouraging the industries to participate both in the development of institutions and capacity, course con-

- tent, and accreditation and certification standards
- Putting in place a real time labour market information system for quality information to industry, training providers as well as prospective trainees
- Expanding the scope and coverage of Apprenticeship Act to involve unorganized small scale industry
- Making skill aspirational among youth
- Putting in place skill qualification framework for vertical and horizontal mobility as well as between vocational and general education.

These priorities need to be addressed by developing appropriate implementation and operational strategies that would facilitate expanding outreach, improve quality, carry out outcome-driven training, regular monitoring, dynamic skill system, foster public-private partnerships, facilitate replicability and scalability of good practices, and put in place qualification standards, quality trainers, and suitable financing mechanism.

### WAY FORWARD

The low penetration of vocational education and training in India requires effort on the part of the government to make skills aspirational among the youth. The scalability and replicability of the skill efforts depend to a large extent on the involvement of private partners, robust labour market information system, flexibility in entry and exit, etc. This necessitates organizing the following elements:

#### Expanding the Outreach, in Remote and Difficult Areas for Marginalized

There is need to strengthen the training infrastructure including availability of teachers in the remote and difficult regions, including the Naxal-affected areas. The scheme of setting up of skill development centres in the backward blocks needs to be implemented urgently so that the training is available to the disadvantaged and poor in these areas. There is also the need to set up training institutes in SC/ST, minority, and weaker section-dominated areas to facilitate their participation in economic growth by enhancing their employability.

<sup>6</sup> Information Available on National Skill Development Corporation Website

<sup>7</sup> Working Group Report on Skill Development for the Twelfth Five Year Plan (2012- 2017).

## Training of Trainers

The biggest challenge in the skill space is the non-availability of adequate trainers. Today, as against the requirement of about 80,000 trainers, there is capacity to produce only 2,000 resulting in a huge gap in many institutes, with almost 60-70 per cent of the posts lying vacant. There is a need to add to the trainers' capacity by setting up a dedicated Trainers' Skill Institute. The industry can also be involved in training the trainers by industry exposure to faculty, cross-movement of faculty and industry personnel and active participation of industry in the training programmes. Besides this, the retired trained manpower from the defence forces, skilled workers from the industry, and retired instructors can also be used.

## Fostering Public-Private Partnerships

There has been some effort to involve the private sector both in setting up and upgrading institutional capacities as well as training providers under various schemes of the Government of India. In addition, NSDC is also catalysing the private efforts. However, the scale of challenge of skilling 500 million by 2022, would need greater participation by the private sector both in terms of technology transfer and actual training of both prospective trainees and the trainers.

There is need for involving industry for continuous revision of the curriculum; making available spare capacity in the government training institutes for the use by the private sector.

## Setting up Sector Skill Councils

The Sector Skill Councils (SSCs) can act as a crucial means to promote industry ownership and acceptance of skill development standards. They would help in identifying skills availability and scaling up skill development efforts in different sectors. SSCs would complement the existing vocational education system for the Industry Sector in meeting the entire value chain's requirements of appropriately trained manpower in quantity and quality across all levels on a sustained and

evolving basis.<sup>8</sup> They would be autonomous bodies, initially receiving funds from the government and subsequently becoming self-funded, for-profit organizations. This initiative has helped large number of countries such as Canada, UK, Australia, New Zealand, Netherlands, and South Africa in addressing human resource requirements of their industries.

## Regulatory Reform in the Apprenticeship System

At present the Act is applicable to medium and large enterprises whereas bulk of the labour force is in the unorganized or small units. Presently, the total apprenticeship seats in the country are only 4.39 lakhs of which only 63 per cent is utilized. Given the need to train larger numbers as apprentices for eventual employment, the

possibility of extending the purview of the Act to MSME may be explored. In addition, there is the need to develop a web-based Portal to enable the employers and prospective apprentices to be connected to each other.

## Labour Management Information System (LMIS)

There is need to have a common platform in the form of a sound real time Labour Market Information System (LMIS) for industry, job-seekers, and government to share information so that effective policy decisions impacting training and enhancing employ-

ment potential of youth can be taken to avoid mismatch in the labour market. This would help not only the policy planners but also other stakeholders to make informed plans, choices, and decisions.

## National Skill Qualification Framework (NSQF)

The fragmented skill system both at the national and state levels requires developing a skill qualification framework which would facilitate multi-entry and multi-exit between education including vocational education and labour market. The system would ease credit accumulation and its transfer so as to convert all forms

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<sup>8</sup> World Bank Report (2006). *Skill Development in India: The Vocational Education Training System*.

of learning in higher certificate/diploma and degree. This would facilitate continuity of the relatively poor students with the vocational education stream of the secondary system or the ITI system, rather than dropping out altogether. This would also ensure that prior learnings are recognized which would improve employability and raise the income and dignity of such skilled workers.

### Skill Advocacy among Youths

There is need to improve the social acceptability of vocational education through advocacy, various audio-visual media, skill fair, and competitions at different levels and campaign about importance of vocational education.

### Credible Assessment and Certification System

There is need to put in place a credible assessment and certification system to ensure quality and enhance employability. This can be done with the help of SSCs and industry.

### Financing Skill Development

Presently, most skill programmes in India are funded from the plan budget both at the central and state levels. The financing can be in public, private or PPP mode. A successful financing model in the field depends on factors such as demand-driven skill system; sustainable funds; transparent and outcome-based fund allocation; competition for funds among training providers, etc. This can be done when the *ad hoc* allocation of funds is stopped and institutions are provided funds for training based on some transparent guidelines both at central and state levels.

However, the scale of skill challenge requires thinking afresh and exploring new sources for meeting the fund requirement. The financing has both mobilization and allocation aspects. Resource mobilization requires participation by all stakeholders which in turn calls for some defined quantitative benefits to employers as well as

students. The resources could be mobilized by:

- Creating a training fund by imposing either payroll levies or tax levies on the medium and large enterprises. It would facilitate massive growth in training and augment public funding and allocation of resources in line with national priorities. Funds have been created in many of the South/East Asian countries.
- Sharing of cost of training by students and provision of scholarships or loan on easy terms for the poor students by the government.
- The private sector taking greater responsibility for skill development by encouraging stipend-based apprenticeship training.
- Incentivizing training institutions to generate income from the sale of products and service activities of trainees and to retain it for meeting the operating costs instead of ploughing back into the government kitty.
- Using skill vouchers to allow the trainees to purchase their own training which can help in building the demand side of the training. They can stimulate competition among the training providers. The key element is competition for the funds.
- Facilitating loans for vocational education on the pattern of general education. The poor students can either be subsidized by government or differential interest can be charged. The Indian Bank Association has prepared a vocational education loan scheme that would provide an impetus to the country's skill mission and help both students and the training providers. The repayment schedule can be dependent on the duration of the course.
- Investing in skill training as part of corporate social responsibility by both public and private sector companies. The government can bring in a resolution to this effect and the central and state governments can proactively involve the PSUs to undertake this responsibility and spend the resources meaningfully. ✓

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# Skill Development: A Bigger Role for the Private Sector

M V Subbiah

There is an old saying that if you want to ensure prosperity for a hundred years, you should start growing people.

This adage holds particularly true for a country like India which is keen to take advantage of a favourable demographic profile, and consequently, the availability of a large pool of people in the working age group of 16-59 years, to promote a faster and more inclusive growth.

Understandably, thus, for quite some time, key stakeholders, particularly industry organizations, employers, and policy-framers, have been pretty vocal about the need to impart the labour force with the requisite skill sets that would enable them to contribute to the process of economic development.

The reasons for that are not hard to understand.

Leveraging the country's 'demographic dividend' (the average age of an Indian would be 29 by 2020 compared to 37 in China and the United States, and 45 in Western Europe as per the Economic Survey 2011-12) is easier said than done on account of the poor level of skills possessed by the vast majority of those joining the workforce each year. A situation that has arisen owing to high dropouts from schools, inadequate skills training capacity, a negative perception around skilling and low employability of even those holding professional qualifications.

The Eleventh Five Year Plan document, citing the NSS 61st Round Survey on Employment and Unemployment, states that attendance rates at educational institutions of those in the 5-14 age group "drop by nearly half in the age group 15-19 years" and by 86 per cent after the age of 15. The Eleventh Plan document goes on to mention that while 12.8 million people join the Indian workforce each year, the annual training capacity is less

than half of that.<sup>9</sup>

The results of the NSS 61st Round show that a mere 2 per cent of the Indian workers in the 15-29 age bracket are formally skilled. Significantly, the bulk of the labour force in India – about 93 per cent - who work in the unorganized sector are largely untouched by any kind of formal training.<sup>10</sup> By way of comparison, 96 per cent of the workers in South Korea receive formal skills training. In Japan, it is 80 per cent, and, in Germany, it is 75 per cent. The figure for the UK stands at 68 per cent.

According to a Boston Consulting Group (BCG) Report<sup>11</sup>, prepared for the Confederation of Indian Industry (CII), India's workforce in 2006-07 numbered 484 million. Out of this, 273 million were working in rural areas, primarily in agriculture. Another 61 million were working in manufacturing and about 150 million in services.

As per the BCG study, 40 per cent of the current workforce is illiterate and another 40 per cent is made up of school drop-outs. Vocationally-trained, diploma holders, graduates and above comprise a mere 10 per cent of the overall workforce, while those who have completed 12 years of

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Software industry body, NASSCOM, says that of the 400,000-odd engineering graduates who pass out every year, only 20 per cent would meet the requirements of India Inc. The rest would have to go through rigorous training before businesses could find use for them.

Studies by consulting firms IMA<sup>12</sup> and Aon Hewitt<sup>13</sup> have forecast that there could be an incremental short-

<sup>9</sup> Eleventh Five-Year Plan, Government of India.

<sup>10</sup> Economic Survey 2011-12, Government of India.

<sup>11</sup> Boston Consulting Group Report. *India's Demographic Dilemma*.

fall of nearly 350 million people by 2022 in 20 high growth sectors of the Indian economy and the unorganized segment (Table 1).

### Recent Developments – Institutional Mechanism for Skill Development and Announcement of a National Skills Policy

Over the past four years, several initiatives have been taken by the government in the skills space, starting with the announcement of the National Policy on Skill Development<sup>14</sup> specifying the roles of all stakeholders — government, industry, trade unions and civil society in promoting the skills cause – as well as the fixing of a target of skilling 500 million Indians by 2022 through the government and private delivery systems in order to enable the country to be in a position to emerge as the future Skills Capital of the world (Figure 1).

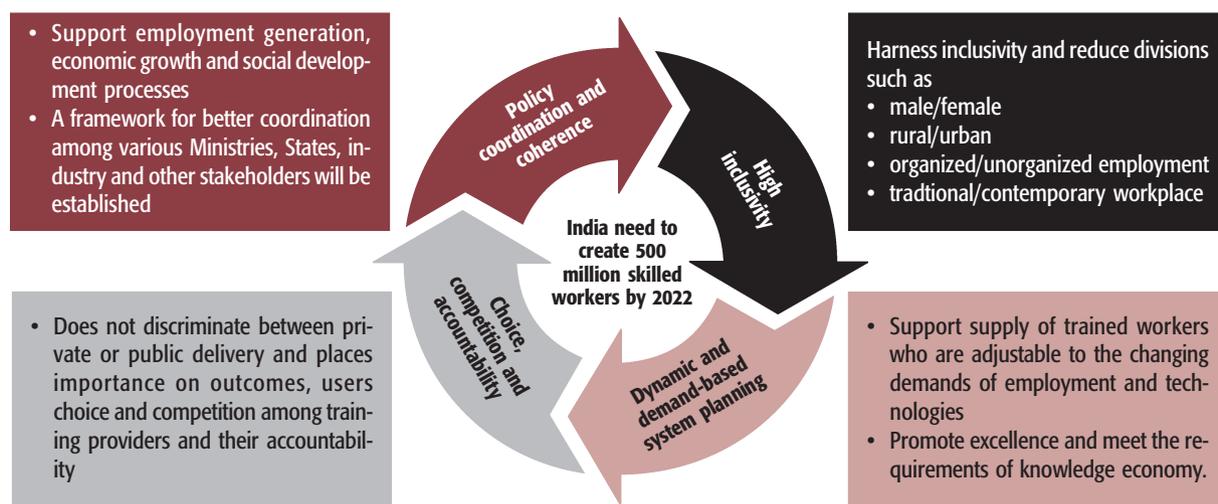
Moreover, a 3-tier institutional structure has been put in place to propel the skill development mission, with a National Council on Skill Development headed by the Prime Minister at the apex acting as the main policy-making body, a National Skill Development Coordination Board headed by the Deputy Chairman of the Planning Commission coordinating the public and private initiatives in the skills space, and the formation of a National Skill Development Corporation (NSDC) as a

**Table 1: Incremental Skill Gap across various Industries in 2022**

Industry	Incremental Requirement (in million)
Building and Construction Industry	33.0
Infrastructure Sector	103.02
Real Estate Services	14.0
Gems and Jewellery	4.6
Leather and Leather goods	4.6
Organised Retail	17.3
Textiles and Clothing	26.2
Electronics and IT Hardware	3.3
Auto and Auto Components	35.0
IT and ITES	5.3
Banking, Financial Services, and Insurance	4.2
Furniture and Furnishings	3.4
Tourism and Hospitality Services	3.6
Construction Material and Building Hardware	1.4
Chemicals and Pharmaceuticals	1.9
Food Processing	9.3
Healthcare	12.7
Transportation and Logistics	17.7
Media and Entertainment	3.0
Education and Skill Development Services	5.8
Select informal employment sectors (domestic help, beauticians, security guards)	37.6
<b>Incremental Total</b>	<b>347.0</b>

Sources: IMaCS and Aon Hewitt Reports

**Figure 1: Skill Development Initiatives of the Government**



Source: National Policy on Skill Development, 2009.

<sup>12</sup> IMaCS (2011). Human Resource and Skill Gap Requirements (2022).

<sup>13</sup> Aon Hewitt Report (2011). *Talent Projections and Skill Gap Analysis for the Infrastructure Sector (2022)*.

<sup>14</sup> National Policy on Skill Development (2009), Government of India.

Public Private Partnership to catalyse private sector involvement in skills development by funding sustainable training initiatives in 20 high growth sectors and the unorganized segment (Figure 2).

Last year, Mr S Ramadorai, Vice-Chairman of India's biggest IT software company, Tata Consultancy Services, was appointed as a Skills Adviser to the Prime Minister with the rank of a Cabinet Minister to give further impetus to the skills drive.

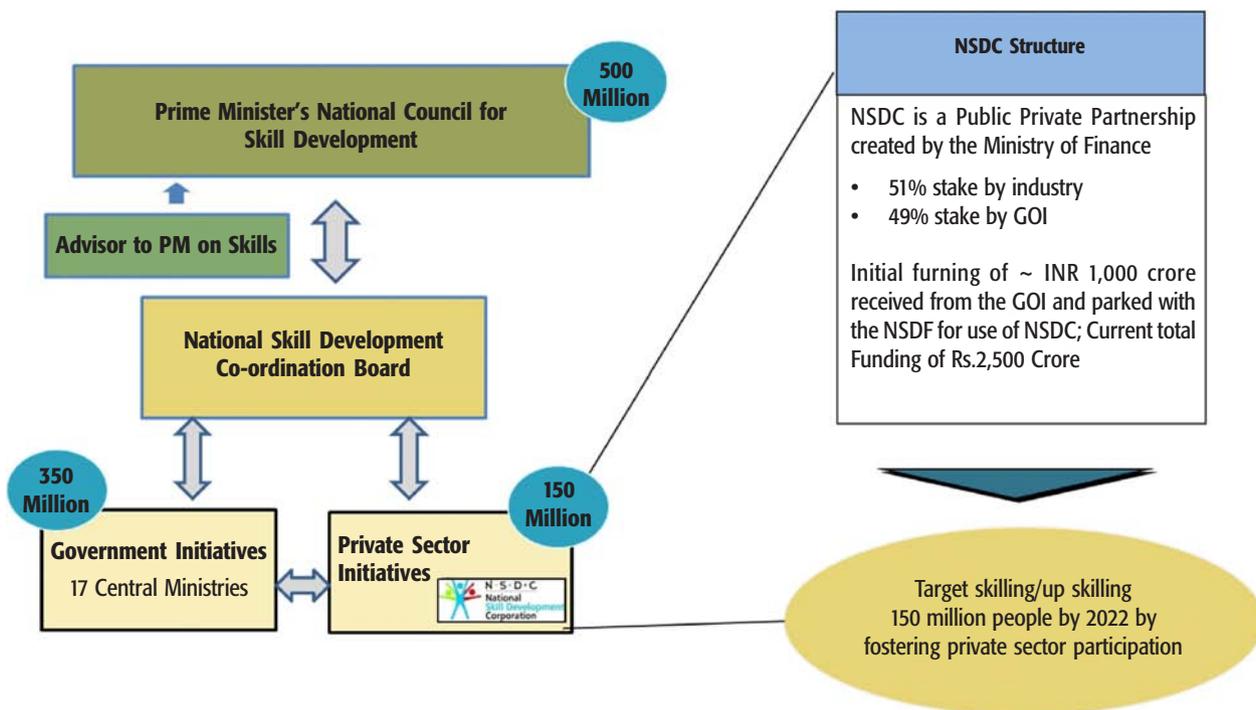
These efforts have resulted in a heightened consciousness among several stakeholders about the need to play a more proactive role in the skill development process. Many training programmes have started to become more focused on outcomes, with the course content tailored to enable students to find jobs or become self-employed. Seventeen ministries of the Government of India ranging from the Ministry of Labour & Employment to that of the Ministries of Human Resource Development and Food Processing Industries are presently engaged in undertaking different training initiatives with the combined target of skilling 350 million people by 2022. NSDC, through its private sector partners, has also embarked on the task of skilling 150 million people within a decade from now.

Most of the formal skills-related training in the government apparatus is happening through the Industrial Training Institutes (ITIs) and Industrial Training Centres (ITCs), which come under the Ministry of Labour & Employment, and the Polytechnics for engineering that are supported by the Ministry of Human Resource Development.

Many of the ITIs have now been brought under the Public Private Partnership route with the private partner responsible for the management of the institution. The goal is to get all 1,396 ITIs under the public private partnership mode. Four hundred other ITIs are being transformed through private sector participation into centres of excellence.

All states have set up Skill Development Missions. Some have even put together a strategy to skill millions of persons over the next few years. Many PPP models have been put forward. The National Open School system is also running a number of vocational training programmes. A number of Community Colleges - over 600 - have been approved by the Indira Gandhi National Open University (IGNOU) and other states. Many of these are run by the private sector. Some states are also approving the setting up of skills universities.

**Figure 2: Institutional Structure for Skill Development**



Many companies, too, are conducting training programmes to meet the skilling requirements of their own workforce, or sometimes as part of their corporate social responsibility (CSR) initiatives. Non-government organizations are also conducting skills-related training to address the needs of the segments they are working with.

### Skills Architecture Limitations and Role of Big Companies

While all this is definitely heartening news, for India to truly leverage its human capital for promoting inclusive growth, it is time that big industry players started playing a more proactive role in the skills movement and moved away from the comfort zone that they seem to have created for themselves of just flagging the problem and, at best, only playing a secondary role in fixing it.

Even from its own perspective, industry simply cannot afford to play a passive role in the skill development process and hope that the problem of skilled manpower would get sorted out all by itself, through government intervention or otherwise. With a projected incremental shortfall of 347 million people by 2022 in 20 key sectors of the economy and the infrastructure arena, industry needs to wake up to the rude reality that a laid-back approach to skilling on its part would only hasten its relegation to obscurity, and, in an extreme scenario, even put its own existence at risk.

Unfortunately, even as some progressive companies within a few industries appear to have started recognizing the need to do something on the skills front, this realization in the majority of cases has not got translated into action. Even in the instances where they have, the interventions have not been of a scale or degree that would make a real difference to the cause of skills promotion in India.

Even today, skills-related training continue to be seen by the vast majority of corporate groups as a way of meeting captive manpower requirements, or a means of giving something back to society (akin to charitable

initiatives in some cases) and clubbed as part of Corporate Social Responsibility. Needless to say, the training thus provided, unless it is to meet company-specific requirements, caters to very small numbers and often has no connection with jobs or employability. In most cases not linked to company-related needs, it is more of training for the sake of it, bereft of any focus to enhance skills capacity in a particular category.

The National Policy on Skill Development, 2009,<sup>15</sup> has listed 12 roles that industry should play for the creation of a skills ecosystem in India:

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Seventeen ministries of the Government of India ranging from the Ministry of Labour & Employment to that of the Ministries of Human Resource Development and Food Processing Industries are presently engaged in undertaking different training initiatives with the combined target of skilling 350 million people by 2022.

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- Owning Skill Development activities
- Identification of competencies and setting up of competency standards,
- Skill demand analysis and curriculum development
- Facilitating training of trainers
- Delivery of training, monitoring and evaluation
- Participation in examination and certification
- Participation in affiliation and accreditation process
- Sharing of workplace experience, machinery and equipment
- Support by way of physical, financial and human resources
- Facilitating employment of trained graduates
- Supporting skill development initiatives of other public and private agencies
- Implementing apprenticeship schemes
- Investing in skill development activities

Unfortunately, the track record of India Inc. on most of these aspects has been mixed thus far.

Skills as a business proposition has as not yet elicited the same degree of interest among big organizations as one would have liked, despite a Kotak Institutional Equities projection (and also echoed by other experts) of a potential \$20 billion skills training market in India by 2022. The skills arena in the private sector continues to be dominated by a limited number of training compa-

<sup>15</sup> *Ibid.*

nies having a national footprint, and a host of regional players, resulting in inadequate capacity creation for meeting the workforce requirements of India Inc. itself.

On the other hand, of course, there has been a growing interest among private sector organizations to align with the NSDC to start sustainable skill development ventures. Many of the NSDC's partners have embarked on large-scale training projects capable of training a minimum of a hundred thousand or more persons in 10 years either on their own or through consortiums.

While the NSDC's small successes augur well for skills, there is no getting away from the massive challenges confronting the task of making the skills culture take deep roots in this country.

Many companies still do not follow the practice of hiring skilled workers at all levels and mapping out a clear career path for employees to ensure their progress within organizations. Several of them have not created an attractive salary differential between the skilled, semi-skilled and unskilled labour force that would motivate people joining them to upgrade their skills. Most organizations are still not doing enough to promote in-service training.

Instances of companies having a formal system of hiring skilled workers at all levels and paying them higher salaries to motivate them to do better and also help the organizations themselves keep attrition levels within check are restricted to specific industries. Even enterprises which recognize the need for skills do not seem to be doing enough to show that they value it appropriately when it comes to paying better salaries or wages.

Till now, industry has also been hesitant to be the voice that would determine how trainings should be conducted, and the standards that should prevail, besides deciding how the assessments and certifications should happen.

## Sector Skill Councils

As part of the National Policy on Skill Development, 2009, industry can do all these things through setting up Sector Skill Councils (SSCs). Sector Skill Councils are employer-driven national partnership organizations that would bring together all stakeholders – industry, labour, and academia included – to achieve the common goal of creating a skilled workforce for the segments they represent.

The proposed SSCs would develop skill competency standards and qualifications, as well as standardize the affiliation and accreditation process. They would put in place labour market information systems (LMIS) to assist in the planning and delivery of training, besides identifying skill development needs and preparing a catalogue of skill types. Promotion of academies of excellence and helping in executing train-the-trainer programmes would also fall within the ambit of the SSCs.

Most significantly, the SSCs would devise the National Occupational Standards (NOS) for different job roles across industries so that measurable criteria could be designed for determining employability that would benefit both the job-giver and the job-seeker. In the absence of NOS, it is quite possible, for example, today, that a person found employable for

the role of a Customer Service Associate in organized retail company A may be considered unemployable for the same role in retail company B, even if both these organizations are roughly of identical size, compete in the same space, and cater to similar geographies.

The SSC initiative has already been successfully adopted by several countries such as Australia, Canada, New Zealand, Netherlands, South Africa, and the UK for addressing their human resource development needs.

Funding for the establishment of SSCs in India is initially done by the NSDC. As it grows, each SSC can become a self-funded, for-profit organization.

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Using skills as the means to help India make the transition from a developing to a developed nation within a decade from now would not happen on its own. It can only be made possible through the concerted efforts of all stakeholders – government, industry, social entrepreneurs, NGOs, educational institutions and civil society – unified in the common desire of promoting the cause of skills development.

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Although the NSDC Board has approved funding of 60 projects till May 2012, only 11 of these pertain to the SSC arena. Many industries still appear to be uncomfortable with the idea of forming SSCs or moving fast on this. Even the 11 SSCs approved till May of this year (Auto, BFSI, Electronics, Gems & Jewellery, Healthcare, IT, Media and Entertainment, Private security, Retail, Leather, and Rubber) are finding it tough to get a buy-in from among their own membership for the NOS concept. Even where the buy-in has taken place in a particular industry arena, fixing a timeline for coming out with the Occupational Standards for as many job functions as possible has proved a herculean effort till date.

Industry leaders have to start taking ownership of driving the Sector Skill Councils and the NOS exercise in their respective domains through greater involvement with the SSCs, as without the occupational standards, the accrediting system, and certification in place, skill

development would be reduced to just another futile exercise.

## CONCLUSION

Using skills as the means to help India make the transition from a developing to a developed nation within a decade from now would not happen on its own. It can only be made possible through the concerted efforts of all stakeholders – government, industry, social entrepreneurs, NGOs, educational institutions and civil society – unified in the common desire of promoting the cause of skills development.

All of us clearly have our jobs cut out. Skilling a country of a billion people is not going to be easy. But if all stakeholders chip in, there is no reason why we should not be able to capitalize on the great opportunity that skill development affords to make a real difference to the lives of countless people. 

# IL&FS Skills Development: Strategy, Challenges and Solutions

RCM Reddy and Subhalakshmi Ganguly

## Skills Training for Empowerment

In the last two decades, 620 million people around the world climbed out of poverty through a labour shift that saw workers moving from the farm to the factory.<sup>16</sup> Economic growth saw the parallel rise of industries contributing towards nation building. Subsequently, jobs in many sectors grew exponentially and met human resource needs through population growth. Many workers who left agricultural jobs transitioned into sectors such as manufacturing and construction, often with minimal exposure and training in those trades. The need for vocational training, differentiated from academic education by its focus on skill attainment and hands-on practicum over theoretical learning, is urgent. Globally, there is an increasing understanding that a pragmatic approach to skills training is an ideal solution to meet workforce demands and contribute towards economic growth and poverty alleviation (See Figure 1).

<sup>16</sup> McKinsey Global Institute (2012). *The world at work: Jobs, pay, and skills for 3.5 billion people*.

In India, the availability of workers is hardly an issue amongst the population of 1.2 billion; rather the critical need appears to be a training strategy that produces high-quality education for all categories of low-skilled<sup>17</sup>, mid-skilled<sup>18</sup> and high-skilled<sup>19</sup> workers. Currently, India has 340 million low-skilled workers, and vocational institutes would need to grow to 2 to 3 times the current capacity to satisfy labour demands.<sup>20</sup> While India's Industrial Training Institutes (ITIs) have undertaken the daunting task of keeping up with workforce demands, the infrastructure needed to keep pace with economic growth requires further investment and a focus on bottom-line issues such as the need to identify quality benchmarks while actively engaging a field of players from the Government, industry, service providers, train-

<sup>17</sup> Low-skilled worker refers to workers with only primary education and a vocational skill.

<sup>18</sup> Mid-skilled worker refers to workers with some secondary education and a skill.

<sup>19</sup> High-skilled worker refers to workers with some college education.

<sup>20</sup> *Ibid*.

**Figure 1: Skill Development Meets Multiple Demands (IL&FS Skills)**



ees and their respective communities. The issue of producing workers with quality skills training requires a studied focus on what defines quality and which strategies must be adopted by the various players in the landscape of vocational training. What makes this a true challenge is that as variables to improve quality are added, the time and resources needed to meet these standards also increase. Thus, there is an urgent demand for skilled workers to meet national targets, but educational provisions must be considered in order to adapt to ever increasing standards.

The Government of India’s economic growth objectives centre around its target of 9 per cent year-on-year growth for the economy to meet skilled manpower requirements of approximately 178 million for the top 15 industry sectors by 2022.<sup>21</sup> In order to meet these workforce demands comfortably, the Government of India has set targets of 500 million skilled workers by 2022, when India will celebrate 75 years of Independence (See Figure 2). Without intervention from the private sector, current infrastructure is capable of delivering approximately 10 per cent of these targets.

**Vocational Training and the Capacity to Transform: The IL&FS Model**

The principal requirement now is an organizational approach with a consistent commitment to quality vocational training and the use of multiple strategies to achieve integration amongst stakeholders so as to ensure successful development of the learner. Infrastructure Leasing & Financial Services (IL&FS) Skills is an organization that has worked successfully through Public Private Partnerships to implement and deliver vocational training to nearly 200,000 youths in over 18 states through a triangulated approach that consists of *community engagement, industry partnership, and design*

**Figure 2: Projected 9% Y-o-Y Growth and HR Needs**

Gov’s 2022 Economic Growth Challenge → 9% Y-o-Y Growth Economy Needs Skilled Manpower																															
<ul style="list-style-type: none"> <li>Incremental HR requirements till 2022 for top 15 sectors is estimated to be 178 mn</li> <li>68% of requirement is for skilled entry-level-operators - education levels of 12 std and below</li> <li>Agriculture capacity to absorb human resources limited</li> <li>54% of population dependent on agriculture, but contribution of agriculture to GDP is around 18%</li> <li>Need for transition of labour from farm to industry</li> </ul>	<table border="1"> <thead> <tr> <th>Key Sectors</th> <th>Incremental Human Resources (million)</th> </tr> </thead> <tbody> <tr><td>Building, Construction, Real Estate</td><td>47.31</td></tr> <tr><td>Auto and Auto Components</td><td>35.20</td></tr> <tr><td>Organized Retail</td><td>17.34</td></tr> <tr><td>Textiles</td><td>16.79</td></tr> <tr><td>Tourism, Travel</td><td>12.86</td></tr> <tr><td>Healthcare</td><td>12.70</td></tr> <tr><td>Education &amp; Skills Development</td><td>5.80</td></tr> <tr><td>IT &amp; ITES</td><td>5.30</td></tr> <tr><td>Leather</td><td>4.64</td></tr> <tr><td>Gems and Jewellery</td><td>4.60</td></tr> <tr><td>BFSI</td><td>4.49</td></tr> <tr><td>Furniture and Furnishing</td><td>3.34</td></tr> <tr><td>Electronics/IT Hardware</td><td>3.22</td></tr> <tr><td>Media &amp; Entertainment</td><td>2.99</td></tr> </tbody> </table>	Key Sectors	Incremental Human Resources (million)	Building, Construction, Real Estate	47.31	Auto and Auto Components	35.20	Organized Retail	17.34	Textiles	16.79	Tourism, Travel	12.86	Healthcare	12.70	Education & Skills Development	5.80	IT & ITES	5.30	Leather	4.64	Gems and Jewellery	4.60	BFSI	4.49	Furniture and Furnishing	3.34	Electronics/IT Hardware	3.22	Media & Entertainment	2.99
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Source: NSDC report on human resources and skill requirements in various sectors (2010).

<sup>21</sup> National Skills Development Corporation (2010). *NSDC report on human resources and skill requirements in various sectors.*

*and delivery.* These are the salient features of its strategy for skills training.

The flexibility and stability offered by such a comprehensive programme gives young workers options to train and enter a variety of growing industries. By 2020, the average Indian will be 29 years old compared to 37 for the average American and 48 for the average Japanese. The availability of such a large market of younger people offers a “demographic dividend”.<sup>22</sup> Ultimately, skilling has the potential to socially transform young people. These individuals, who are most often school dropouts seeking to join the work-force, need the critical bridge of information, training, soft skills, and experience that will enable them to learn a viable trade and successfully transition into gainful employment and, thus, economic empowerment.

### **Engaging our Stakeholders: Community Mobilization and Industry Partnership**

As the social infrastructure arm of IL&FS, a critical goal for IL&FS Skills is the social business objective of *community engagement* in local spaces where the organization works. The first step in bringing skills training to regions across the country is the need for bottom-up mobilization. *Panchayats* are referred to as channels of communication for inquiring about community needs and interest in skills training. Such village level organizations serve as the home bases for logistically organizing potential candidates, relaying education to candidates and their families about vocational training as a means of economic mobility and evaluating impact of vocational training on the skilled worker and his or her subsequent community. The strong relationship at the grassroots level in each of the communities IL&FS Skills works in, from Orissa to Tamil Nadu to Jammu and Kashmir, enables the organization to mobilize the field of trainees and produce trained workers at the scale necessary for significant impact.

<sup>22</sup> Ministry of Labour and Employment Report to the People on Employment (2010). Delhi: National Informatics Centre.

Community engagement for IL&FS Skills begins with the foundational understanding that the ultimate success of the programme is directly correlated to the success of the individual learner and his/her transformation from unskilled worker to workforce-ready, trained employee with experience and know-how of industry practices and expectations. The programme orients itself from the perspective of the trainee and offers skilling through multi-media delivery in multiple languages for optimal understanding and success of the learner.

### **Industry Feedback and Cooperation**

One of the key requirements to approaching vocational training from the learner perspective is in providing the latest training to candidates which enables them to secure employment. Industry partnerships with IL&FS Skills contribute to the regular sharing of information and resources that ensures this outcome. Until recently, the private sector in India was slow to prioritize the need for high-quality skills development. Despite a shortage of trained manpower, there was limited appreciation for investing in structured programmes to train workers. Increasingly, this has changed with industry realizing the value of a workforce-ready trainee. The Industry Partnership Team at IL&FS Skills

works closely with private entities to develop pragmatic training programmes, gauge industry requirements and share this information readily with its trainees. Information on industry’s evolving needs is conveyed to training schools which adjust curricula accordingly. This feedback loop ensures a proactive job linkage that benefits both the trainee and industry – which needs well-trained candidates.

For nearly all trainees in skilling programmes, the ultimate goal is viable employment that will transform the economic situation for them and their families. Yet, job linkages between traditional vocational centres are often ad hoc or non-existent and therefore mobilizing youth successfully in skill development presents steep challenges for the training centres. Young people need

to buy-in to vocational training as a catalyst for professional and personal growth and the training provider needs to leverage this buy-in by inviting industry involvement in developing vocational training and offering job linkages. IL&FS Skills recognizes the importance of placement-linked training and thus ensures that every candidate begins the first day of training with the promise of a job guaranteed through letters of intent from industry partners. Additionally, the IL&FS Industry Partnership Team works to continuously gauge the job market, build strong private sector partnerships and keep an active link between the industry and the candidate in the training process. The ability to tap into the stream of industry-specific information and secure employment guarantees engenders IL&FS Skills the dual ability to advocate for the learner as well as understand the evolving needs of the industry partner.

#### **Design and Delivery: Customized Curriculum Ensures Quality**

Vocational training was once meant to offer a practical alternative to traditional academic education. For individuals who may not continue with higher studies or were looking to join the workforce immediately, learning a skill or trade provided that unique non-traditional route. In the process, the candidate emerged as a skilled tradesman capable of working with his/her hands to provide a service or a skill.<sup>23</sup> Training in this area has remained unchanged in the past decade: lectures, rote-learning and group viewing of single demonstrations continue to form the basis of skills education. Furthermore, delivery of such curricula is meant for young adult learners, some of whom are school dropouts. Therefore, pedagogical methodology becomes even more vital for effective learning. IL&FS Skills views the vocational curriculum as the basis of training and programme quality, exploiting the expertise of over 100 academics and specialists in its Curriculum Content Group (CCG). In-house curriculum development ensures strict quality control

<sup>23</sup> Kincheloe, J. (1999). *How do we tell the workers? The socioeconomic foundations of work and vocational education*. Boulder, CO: Westview Press.

and the flexibility to customize design and delivery as well as evolve with industry and IL&FS Skills objectives.

The organization's training methods include multi-media presentations and an evidence-based curriculum. Lessons are delivered overhead via K-Yan©, a multi-media tool developed by IL&FS Education and researchers at IIT-Mumbai. It combines a computer, overhead projector, electronic slate, and pre-loaded content. Each trainee has his/her own work station where he/she can practice lessons, e.g., on a sewing machine or welding station. Trainers move about the classroom to monitor

the learning space and assess individual student work. The use of a variety of teaching methods, from visual to kinaesthetic, as well as instructional delivery through technology ensures that learners of all abilities can easily understand course content. The use of a modular in-house curriculum also allows greater flexibility of content. Recently, the government has mandated all vocational service providers to deliver curriculum in a modular fashion to ensure quality delivery of instruction, a practice that IL&FS Skills had adopted in its programmes from the outset.

#### **Accreditation and Evaluation Ensures Quality and Impact**

A crucial component of the IL&FS Skills *design and delivery* strategy for quality training is the self-auditing process. The programme aims to maintain high standards through continual monitoring and evaluation. In a field where benchmarks have yet to be established, IL&FS Skills took an early, rigorous approach to independently gain accreditation from recognized agencies within each industry sector and to develop unique proficiency standards. Rather than focusing solely on test scores, the organization developed qualitative rubrics by asking industry partners to define the traits of a good welder or BPO operator, for example. In order to ensure that skills trainees were prepared correctly, accreditation for each skills sector (e.g., manufacturing and construction) was adopted by IL&FS Skills as the first stage of certification for skilling. Accreditation has now been granted by various entities

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(IL&FS) Skills has worked successfully through Public Private Partnerships to implement and deliver vocational training to nearly 200,000 youths in over 18 states through a triangulated approach that consists of community engagement, industry partnership, and design and delivery.

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from lead industry organizations such as Godrej, institutional certifiers such as Scottish Qualification Authority (SQA), and industry associations such as Retailers Association of India (RAI).

Additionally, external evaluation of programmes was undertaken by institutions such as Madras Institute for Development Studies (MIDS) and Xavier's Institute of Management Bhubaneswar (XIMB). The organization also utilizes a comprehensive Management Information System (MIS), which analyses data to provide an information dashboard to multiple stakeholders, from programme managers to the Government to external auditors. IL&FS Skills also led the field by being the first to track its skills graduates for an entire year following their training. This proved to be a challenging undertaking as the resources invested in tracking candidates, who move from company to company, can be enormous. Nonetheless, the importance of tracking was a part of the IL&FS Skills strategy from the start and, today, the Government requires MIS as well as tracking of trainees as implementation prerequisites for their national skilling mandates.

### **Current Challenges in Skills Development: A Need for Benchmarks**

Leadership in a field means working closely with stakeholders and understanding challenges from each perspective while forging ahead to meet targets. IL&FS Skills has successfully achieved scaled-up vocational training through its strategy of working with the Government, partnering with industries, engaging communities and supporting the learner through optimal design and delivery of content and accredited programming. However, the arena of vocational training continues to be a space for great opportunity bound by critical challenges. This calls for cohesive action. One of the most urgent obstacles in vocational training today is the lack of a national benchmarking system. Currently, several entities occupy the leadership space for vocational training from the Government to the National

Skills Development Corporation (NSDC) to private sector service providers such as IL&FS Skills. There is a desperate need for dialogue to identify and develop quality checks through national guidelines and proficiency standards for each vocational trade. Until this standardization is formalized, quality of training will continue to be sacrificed to cost-cutting as independent service providers enter the field motivated purely by profit.

Benchmarks for vocational training also entail creating a country-specific accreditation system for each sector and trade. Such a system will ensure improved quality of training as well as effective auditing of quality measures from a uniform authority. A suggested solution is for NSDC to actively promote the Sector Skills Councils (SSC): government-sponsored, industry-led entities that represent specific economic sectors. SSCs are best positioned to take employer-led decision-making in what constitutes quality guidelines for each sector and which organizations to engage for industry certification. This has the potential for resolving the question of what constitutes benchmarks and integrating the importance of quality with the objective of meeting quantity demands, a much needed strategic shift for vocational training today.

### **Further Challenges and Future Direction**

Vocational training and its evolution rest upon the outcome of additional debates about commercial sustainability, the need for greater industry involvement, and the challenge of scale. The funding structure for skills training is one of the emerging challenges most relevant for the learner today. While government ministries offer funding and support for skilling youth below poverty level, there is a need for supplementary programmes to provide further robust resources. Financial support from banks, in the form of collateral loans for vocational training, offers one potential funding source. Microfinance Institutions, with financial products for education and vocational train-

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For nearly all trainees in skilling programmes, the ultimate goal is viable employment that will transform the economic situation for them and their families. Yet, job linkages between traditional vocational centres are often *ad hoc* or non-existent and therefore mobilizing youth successfully in skill development presents steep challenges for the training centres.

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ing, offer another option for securing funding options for the trainee. Government funded skills vouchers, which would allow trainees to enroll with their provider of choice, also offers an attractive alternative for financing training programmes. As learners choose where to use their training vouchers and training providers compete to enroll trainees, there is the added potential of improved quality and services delivered to the learner.

The issue of scale is a pervasive obstacle that continues to test the landscape of vocational training in India. The demographic dividend offers both an advantage in human resources as well as a challenge in the need for widely available, high-quality infrastructure for training. New ITIs must be established to meet demand, while existing ITIs should be revitalized with revamped curriculum and programming. Furthermore, ITIs could be further leveraged by offering long-term contracts to the private sector for publicly funded schemes for vocational training. Evolving these PPP frameworks, where the private sector is given adequate freedom and incentives to operate, may ensure that challenge of scale for training programmes are resolved systematically.

The need for increased participation from industry in skills training dialogues as well as direct investment in developing vocational training is now more critical than ever before. In countries where vocational training is

further evolved and has a longer legacy, such as Germany and the UK, the private sector that benefits from the output of trained workers are the first in line to invest in vocational training as a field. While industry has been working in partnership with organizations like IL&F S Skills, there is an added need to put a premium on sufficient training and recruitment of the skilled trainee. The challenge of scale can only be appropriately

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The demographic dividend offers both an advantage in human resources as well as a challenge in the need for widely available, high-quality infrastructure for training. New ITIs must be established to meet the numbers demand, while existing ITIs should be revitalized with revamped curriculum and programming.

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met with all stakeholders working in tandem to meet the enormous demands for high-quality vocational training. Partnership between the Government, industry, organizations like NSDC and service providers like IL&FS Skills must be an integrated and holistic relationship which seeks dialogue, resolutions and a common direction for the future of vocational training. Capacity building through workshops, knowledge sharing and benchmark creation are vital strategies for overcoming many of the modern-day challenges in skilling.

At IL&FS Skills, the organization believes mastering a vocational trade gives young people economic empowerment. Over the next decade, IL&FS Skills seeks to make an impact on a million youth across every district

in this country and become the preferred choice for partnership with the Government, employers and sponsors. Most importantly, IL&FS Skills intends to be an active agent in providing transformative vocational training to communities of learners across the country. ✓

## Welcome New Focus on Skilling Our People: A Beginning Made but Many Challenges Going Forward

**Gautam Sen Gupta**

The Indian economy has been growing rapidly in a steady and sustainable fashion over the past two decades, since the beginning of the economic reforms initiated in the early 1990s. Growth continues, albeit with a slowdown in 2012, and the Indian economy remains a

beacon of hope in a stalling world beset with economic problems.

An important challenge for the economy is to ensure inclusiveness, by assessing the impact of growth at dif-

ferent levels across its socio-economic strata. Certainly, enhanced economic activity has led to growing demand for a trained workforce to match industry requirements at various levels. The need is not only for graduates from our higher education institutions; there is, in fact, greater need for skilled manpower at lower levels in organizations, and much has been written on the opportunity of India's demographic dividend contributing to the needs of industry across the world.

In large part, inclusiveness can be assured through an alternate stream of education – vocational education and training (VET) leading to employment – which has found an important place in the education landscape of many countries worldwide, both developed and emerging, but not quite yet in India.

### How Do We Compare with Other Nations?

We have 9,500 Industrial Training Institutes (ITIs), where trades are taught for manufacturing industries, and 1,745 polytechnics. This compares with China's 500,000 VET institutes. Our VET institutes offer 282 trade courses; the US offers 1,500 VET programmes. Worse, quality of instruction in the traditional Indian VET institutes is suspect; they are characterized by dated, structurally defined, and centralized syllabi, taught without much sense of market conditions or of the huge importance of imparting multi-skills that contribute to and ensure a lifelong learning process.

Some of the biggest challenges faced by rural and small-town urban youth in making the transition to becoming an industrial worker include lack of social and life skills to cope with urban lifestyles; coping with completely different cultures in their new urban settings; and, lack of emotional support from their families. Our VET institutes do not take cognizance of these problems.

There are two other areas where vocational skills are taught. One is the teacher-apprentice system in the informal sector, widespread in India, where professional

skills are handed down within families and in trade houses, using on-the-job mechanisms. The other is industry, where unskilled workers are taught to perform on-the-job for daily wages, often learning through observation without any formal training. These systems are very well established, and are important factors underlying the suboptimal-performance of the formal vocational training system in India.

NSS data (61st Round 2004-05, in the absence of more recent data) indicates that of all individuals in the labour force aged 15-29 years, only two per cent have received formal, and another eight per cent non-formal, vocational training. This compares with 96 per cent in the South Korea, 80 per cent in Japan, 75 per cent in Germany, 68 per cent in UK and, within developing countries, 28 per cent in Mexico and 22 per cent in Botswana.

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In large part, inclusiveness can be assured through an alternate stream of education – vocational education and training (VET) leading to employment – which has found an important place in the education landscape of many countries worldwide, both developed and emerging, but not quite yet in India.

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With relatively recent focus on the need to do something about the unemployment problem through teaching vocational trade skills, overcome the mismatch between skills required in industry and the skill base of job seekers, accelerate the course of development in the country, unleash entrepreneurship, and to take advantage of the demographic dividend, efforts are now afoot to address the skill requirements of a growing economy. These efforts bring the private sector strongly into the picture, and indicate a shift towards augmenting the education landscape with a new focus that is not limited to higher education in-

stitutions.

The current capacity for skill development in India is around 3.1 million persons per year. The Eleventh Five Year Plan envisions an increase in that capacity to 15 million annually. The government has targeted creating 500 million skilled workers by 2022, with the deadline set by the Prime Minister's National Council on Skill Development. Clearly, there is need to increase capacity.

## Current Policy Interventions

The Eleventh Five Year Plan has focused on developing a large pool of skilled workforce to meet the needs of the industry, trade, and service sectors. To reap the benefits of a demographic dividend, it favoured the creation of a comprehensive National Skill Development Mission (NSDM). As a result, a three-tier institutional structure was created in early 2008 – the Prime Minister’s National Council on Skill Development (NCSM), National Skill Development Coordination Board (NSDCB), and the National Skill Development Corporation (NSDC).

Separately, the National Knowledge Commission’s (NKC) recommendations focus on increasing the flexibility of VET within the mainstream education system. NKC has also emphasized the need to expand capacity through innovative delivery models, including robust PPP models. It has acknowledged the necessity to ensure a robust regulatory and accreditation framework, along with proper certification of vocational education and training. The newly formed NSDM would encourage Ministries to expand existing public sector skill development infrastructure and its utilization by five fold.

In addition to Central plans, almost all line ministries provide some form of training. They include the Ministry of Rural Areas and Employment conducting programmes like Jawahar Rozgar Yojana (JRY) and the Integrated Rural Development Programme (IRDP); the Department of Women and Child Development which runs Support to Training and Employment Programme (STEP); the Khadi and Village Industries Commission (KVIC) which has 51 training centres including 12 village industry training centres; Bharatiya Yuva Shakti Trust (BYST) which helps unemployed and under-employed youth aged 18-35 years to set up their own businesses; Entrepreneurship Development Centres that provide training in different fields based on the resource endowment of the area; the National Renewal Fund (NRF) which provides assistance to cover the cost of retraining and redeploying of employees arising from

modernization, technology upgradation and industrial restructuring; and the Ministry of Agriculture’s Krishi Vigyan Kendras imparting training to farmers, farm women, rural youth, and grassroots level extension workers in agricultural products. In recent years, the Ministry of Rural Development has emerged as one of the largest skill development funding agencies through its Swarnajayanti Gram Swarozgar Yojana (SGSY) and National Rural Livelihood Mission (NRLM) initiatives. In addition, most states now have a strong focus on employability through the imparting of vocational skills, and funding of training with a mix of State and Central funds.

NSDC, set up in 2008, has the mandate to train 150 million youth by 2022. From the start, NSDC has been aggressively working to fulfill this mandate, and has established a PPP model wherein private sector players are partnered with equity or debt against time-bound commitments to train and obtain employment for trained youth. By June 2012, NSDC had listed 51 private sector partners on its website that would collectively train 67.3 million students by 2022.

The list of NSDC partners is impressive, with many large Indian business houses represented along with a number of committed, new players. It is particularly interesting to note that a number of enterprises partnering with NSDC are founded by IIM and IIT alumni, representing the traditional higher education routes to

education and employment in India.

In the Twelfth Five Year Plan (2012-17), the Centre is set to launch a National Urban Livelihood Mission, with 5 million people to be skilled and placed under this initiative during the Plan period. Further, in the Annual Budget for 2012-13, there is a clear focus on skill development, with a proposed outlay of INR 10 trillion for the National Skill Development Fund. The Government has also exempted vocational training institutes from service tax, and provided tax benefits to manufacturers for costs incurred on training and developing talent.

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Some of the biggest challenges faced by rural and small-town urban youth in making the transition to becoming an industrial worker include lack of social and life skills to cope with urban lifestyles; coping with completely different cultures in their new urban settings; and, lack of emotional support from their families.

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Clearly, there is now a focus on VET, an intrinsic understanding of its value to the Indian economy, and demonstrated willingness of a large number of private sector players to support the government and venture into this unknown zone to build viable business models without precedent in the Indian context. These are significant moves, and they face significant challenges.

### **Skills Training as a Career Option: Is There a 'Social Stigma'?**

Historically, getting skilled for a specific trade has been viewed in our country as being inferior to gaining academic knowledge. Could this be attributed to our caste system, where the skilled manual worker was treated as the lowest caste? It has been more than 2,000 years now, and the Indian society is still not willing to respect a skilled worker for the skill levels acquired by him. Examples of this are rife in our everyday lives - the driver, cook, plumber, electrician .....

Is it any wonder then that the young jobseeker in the Indian society today views it as a failure to be trained in a skill, and tends to consider such training as a 'lesser education'? Evidence indicates that skills training is popular in the cases of trades that are closer to academic than manual skills, such as software programming, accounting, etc. These options are seen closer to traditional higher education, leading to white collar jobs in an office rather than a blue collar job on the shop floor. There is greater acceptance in society for such skills, unlike if one were to be trained as a welder, plumber, carpenter, all of which seem to carry a social stigma relegating the skilled worker to the level of a second-class citizen, 'worker' as distinct from 'babu'.

The greatest challenge, therefore, is in student capture. Who wants to be trained in a vocational trade leading to a blue collar job? Our mindset needs to change; this constitutes a huge challenge. It requires a social revolution, without which it is inconceivable that youth will arrive in large numbers to avail the VET opportunities that are opening up. Youth must be persuaded that there is dig-

nity in skilled work, that these skills will fetch them salaries and other economic benefits to allow them to progress and lead good lives, and that society will see them at par with 'managers' and 'administrators'.

Certainly, this is a huge task. But it is not an impossible task, evidenced by the social structures in countries such as Germany, UK, US, Canada, and Australia, that Indians have typically looked at positively, as developed nations.

### **Assessment and Certification: Lack of Credibility**

Upon completion of training, a robust assessment process is necessary to ensure valid and credible certification. Presently, the only widely recognized certification available is that provided by the National Centre for Vocational Training (NCVT). While NCVT certification is accepted by government institutions, it seems that private organizations do not necessarily find this certification adequate, and it is understood that many organizations use the NCVT certification as a 'short-listing' tool rather than as a 'selection' tool.

The challenge begins with the quality of assessors. Till date, there is no formal accreditation body for assessors. As a result, the reliability of assessment is always under question. There have been sporadic efforts to import 'foreign' assessment tools; these have had limited validity, given their lack

of alignment with Indian curricula and industry needs.

A possible solution is being worked upon by NSDC, to provide assessment and certification through sector skills councils that it is establishing.

This lack of a strong certification system constitutes a huge challenge to VETs being able to deliver employment to their trainees. Without employment, the purpose of vocational education is lost.

### **Funding Student Training: Who Bells the Cat?**

At the bottom of the pyramid where VET has maximum impact and benefit, a significant constraint is that stu-

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dents are unable to pay a level of fee that allows a VET player to develop a viable business model. Also, fees are often delayed beyond due date, impacting cash flows in the VET business.

Banks have traditionally shied away from providing student loans in the VET sector. There is reason to believe that this policy may change now, providing a huge opportunity for students to access VET.

In reality, till now student fees have largely been borne by the government through various state-funded programmes. This system has its limitations – student commitment may be limited because the training is essentially ‘free’; these grant-based models are not known to generate a self-sustaining eco-system. Also, while state-funded training is a welcome initiative from the government, there can be conflict when assessing the efficacy of use of funds -- Should government rely only on quantitative numbers of how many students were trained, or how many students were provided employment? Should assessment also look at growth in salaries effected by up-skilling existing blue collar workers? How long the trained employee stayed in a job? Was the student given life skills education to facilitate his move from semi-urban and rural to strange urban settings?

Corporations can look to shift their hiring model to recruit skilled manpower post-training, rather than to hire a raw workforce and train it in-house as is the current practice. A successful experiment has been conducted by a large garment export-house where fresh inductees are pre-trained and certified before being offered a job. The beauty of the system, highlighting the benefit of quality training, is that rejects are being hired by smaller organizations in the same industry, that have less stringent entry requirements.

In recent years, private players have striven to develop realistic business models, with some students paying their own way, some sponsored by government or other agencies, and some sponsored by industry.

The challenge is to align better with each other, for maximum impact.

## Trainer: A Career of Last Option?

The lack of quality trainers in the skills training arena is well documented. This is a huge challenge, as a career as a trainer is not seen to provide commensurate financial returns. Teaching in a school at least offers a certain social status in the community, though these jobs too are far from being well-paid. Not many in industry appear to be keen to become trainers even within their own organizations; there is a perception of this being the option for people not suited for more important and more visible jobs in the organization.

Compounding this, there is a limited number of training organizations that specialize in the training of trainers. Most trainers are not certified – in fact, there appears to be no commonly and unreservedly accepted certification available. In the absence of quality trainers, even with excellent infrastructure the quality of training is seen to be poor at some institutions. Without role models as quality trainers, good trainees from train-the-trainer institutes reject the opportunity to become trainers themselves, and seek other jobs in industry; a vicious cycle of lack of trainers continues to plague the country.

Finding good trainers to run VET courses remains one of the greatest challenges in the sector.

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Most trainers are not certified – in fact, there appears to be no commonly and unreservedly accepted certification available. In the absence of quality trainers, even with excellent infrastructure the quality of training is seen to be poor at some institutions.

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## Training Effectiveness: Simulation or On-the-Job?

Industry and training organizations have developed independent of each other, and, as noted earlier, this has given rise to two distinct paths for providing a skilled workforce to industry. One is the training organization offering academic excellence that trains workers with the support of laboratories to simulate real-life conditions; the other is the large corporation that has built huge in-house training infrastructure to train a fresh workforce in specific domain skills.

Such disjointed efforts in training the workforce have resulted in sub-optimal standards and wide variance in skilled manpower, when compared to developed nations that have integrated VET in their education landscape. There is need for greater co-operation between training

organizations and industry. Industry should not need to set up dedicated training schools, but is forced to do so because of a lack of credible VET players that can provide the right number of rightly skilled workers whenever required. This requires planning and vision. It requires strong and credible collaboration between industry and VETs, facilitated by the government. If guaranteed a stream of qualified workers, it is conceivable that industry would turn to the VET player more and more to satisfy its requirements – the obvious advantage is that this would reduce industry’s costs on building and running its own training centres, and allow it to focus more on its products and markets.

This can be achieved. There are excellent examples of corporate involvement in the higher education sector, such as in the form of setting up Indian School of Business (ISB)’s new campus at Mohali that will have the Bharti Institute of Public Policy, the Max Institute of Healthcare Management, Munjal Global Manufacturing Institute, and the Punj Lloyd Institute of Physical Infrastructure Management.

### **Training Infrastructure: Government, Private or PPP?**

Training infrastructure is a critical input for the efficacy of a training programme, the other being the quality of the trainer. Training organizations in India range from having very good infrastructure to just adequate and sometimes very poor infrastructure. There is need to upgrade infrastructure, and standardization is desirable.

The most logical way forward is for training institute infrastructure to be augmented with infrastructure made available by industry. Both parties involving in structuring of the curriculum and training methodology will contribute hugely to VET courses being aligned with industry needs.

The challenge is to build effective collaboration between industry and training organizations. Indian industry has a dismal record of contributing production equipment and tools to training institutions. Training organizations tend to work with ‘miniatures’, with an eye on costs – infrastructure is a major component of start-up cost for

a training institute. This means the trainee has little opportunity to work with real equipment through his training. An example is of accounting software where the company provides low-cost ‘academic version’ licenses for training institutions; the ‘professional version’ used in the real world is so different from the ‘academic version’ that most trainees have to restart training when they join an organization.

### **Conclusion**

There are certainly many challenges in the way of making vocational education an accepted alternative to higher education, as a means to employment and careers in the Indian context. The first steps have been taken with a growing number of government and private VET players, and islands of excellence are scattered all over the country.

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With a sustained focus on building a skill-culture, it may not be long before India begins to provide not only IT professionals but also a substantial chunk of the skilled manpower that will be required across the globe.

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NSDC, supported by the government, is understood to be working on social re-engineering to put skilling in perspective, helping change mindsets so that society accepts that ‘skilled’ is as important to society as a college degree holder, and accords skills due respect. This is the biggest challenge. True to the Indian constitution, we need to focus on ‘equality’ in all respect, including that for the skilled worker.

In large part, private players may be expected to work out viable business models – Indian entrepreneurship will ensure this, looking at a market that ranges from 200 to 500 million awaiting skilling. In the process, student funding, infrastructure, curriculum, certification will all be sorted out.

With a sustained focus on building a skill-culture, it may not be long before India begins to provide not only IT professionals but also a substantial chunk of the skilled manpower that will be required across the globe. In the process, youth from the bottom-of-the-pyramid that benefit most from skills-training will begin to earn incomes with dignity; this will lead to enhanced prosperity for their families, inspire youth in later training batches, and benefit local economies from increased consumption. 🌟

# Changing Occupations, Changing Skills: Graduate Labour Market in India

Jeemol Unni and Sudipa Sarkar

The major debates in education in India have centred around elementary education as the country besides having more than one-third of its population below the age of 14 years has a low level of literacy. The arena of higher education has remained relatively under-researched, but as India grows rapidly into a knowledge economy, there are concerns about whether its higher education system can match up to the challenge of producing an appropriately skilled workforce necessary for this growth. The graduate labour market is changing in two ways. The occupational profile or the nature of jobs in certain occupations is changing; for example, a car salesman now also needs to have technical knowledge about the product. The kind of skills/education required to get a job is thus changing. Changes in the demand for higher education/skills in occupations require a change in the supply of labour, or the quality of worker. In common parlance, this is what is termed as the mismatch between demand and supply of skills.

This paper<sup>24</sup> addresses the question, albeit in a limited way: Is the demand for higher education (defined as graduates with bachelor degrees) increasing rapidly in certain occupations? The analysis uses unit level data from the National Sample Survey Organisation (NSSO),

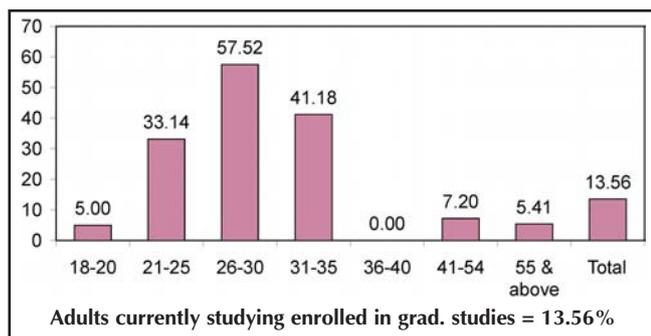
and Employment and Unemployment Surveys of 1999-2000 and 2009-10.

## Graduate Enrolment and Employment Trends

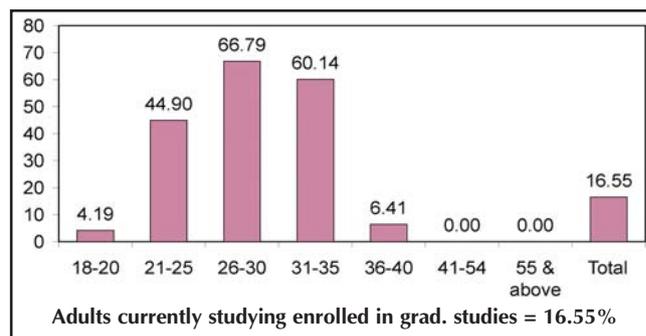
Graduate enrolment reflects adult interest in education. In the age group of 18 years and above, the enrolment was found to have increased from 14 per cent in 1999-2000 to nearly 17 per cent in 2009-2010 (Figures 1a and 1b). In the next decade, while there was roughly a 10 percentage point increase in graduate enrolment in the age group of 21-25 years and 26-30 years, the concomitant increase in the 31-35 year age group was 20 percentage — a very encouraging sign indeed for the growth of higher education.

Among the employed, there was a steady rise in the number of jobs for occupations requiring higher qualifications such as professional, technical, administrative, and clerical in the last decade since 1999 (Figure 2). Production, sales, service and agricultural occupations, which required lower levels of education (though not necessarily lower skills) grew rapidly until 2004-05 and started to decline thereafter. The labour market was thus tilting towards jobs requiring higher educational qualifications.

**Figure 1a: Percentage of Adults Enrolled in Graduate Studies by Age Group (1999-2000)**



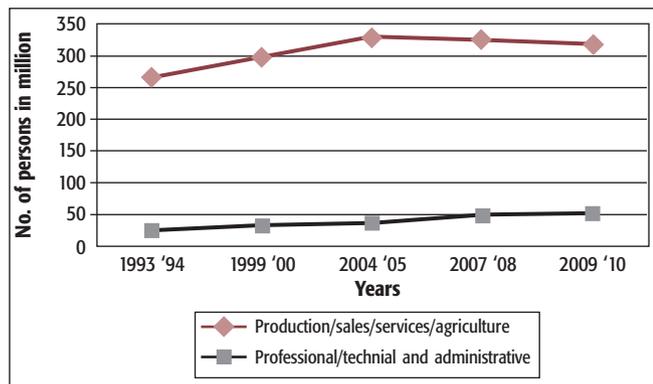
**Figure 1b: Percentage of Adults Enrolled in Graduate Studies by Age Group (2009-2010)**



**Source:** Computed from unit records of NSSO Employment and Unemployment Survey, 1999-00 and 2009-10 by NCO 2004 classification in both years.

<sup>24</sup> This paper is a product of a collaborative research project funded by the Economic and Social Research Council, UK on higher education in India and Brazil. Earlier versions of this paper were presented at Conferences in Brazil in April 2011 and at the Center for Policy Research, New Delhi, in July 2011. A larger and more detailed version is available in Unni, Jeemol and Sarkar, Sudipa (2012). *Education and employment: Do the education level/skills of our youth match relevant jobs?* Working Paper 232, Institute of Rural Management, Anand.

**Figure 2: Employment Trends by Broad Occupational Groups, 1993-94 to 2009-10 (in millions)**



**Source:** Computed from unit records of NSSO Employment and Unemployment Survey, 1993-94, 1999-00, 2004-05, 2007-08 and 2009-10 by NCO 2004 classification in all the years.

### Higher Education and Occupational Structure

In a detailed analysis of employment change in the UK since 1980, Elias and Purcell<sup>25</sup> used two quantitative parameters to identify graduate intensity in occupations: i) the rate of graduate participation in each occupation; and ii) the gaps between younger and older cohorts (under the premise, well verified in the UK case, that the younger cohort will display the same or higher percentages of graduates than the older). Through this measure, five distinct occupational categories were identified on the basis of qualifications required, skills used, and the proportion of the employed with a degree in different age-bands and at different points in time. Every occupation listed in the UK Labour Force survey was then classified into one of these groups in order to be able to measure change in 'graduate' employment.

To suit the Indian occupational requirements, a slightly simplified method of classification of graduate intensity was adopted (Box 1).

In this classification, an occupation where less than 7 per cent of the workers were graduates was noted as a non-graduate occupation. A comparative description of graduate occupations in India and the UK in 1999-2000 is given below.

<sup>25</sup> Elais, Peter and Purcell, Kate (2004). SOC (HE): A classification of occupations for studying the graduate labour market. Research paper No. 6, *Researching Graduate Careers Seven Years On: A research project jointly funded by the Economic and Social Research Council and the Higher Education Careers Services Unit, Warwick Institute for Employment Research, Warwick.*

### Box 1: Classification of Occupation Groups by Graduate Intensity

The criteria used for the two age cohorts, 21-35 years and 40-54 years, are as follows:

Very High $\geq 60\%$	The proportion of those employed holding a first degree is greater than 60 per cent in either age cohort in each occupation.
High 40-59%	The occupation group has not been classified as above and the proportion of those employed holding a first degree is 40 to 59 per cent in either age cohort.
Medium 15-39%	The proportion of those employed holding a first degree is 15 to 39 per cent in either age cohort in occupation groups that has not been classified above.
Low 7-14%	The proportion of those employed holding a first degree is 7 to 14 per cent in either of the age cohort and the occupation is not classified in any of the above.
Non-graduates $<7\%$	All other occupation groups not classified above and with the proportion of employed graduates of $<7$ per cent.

**Very high graduate intensity occupations:** These occupations requiring highly qualified people were quite similar in both the countries. They mainly included professionals such as solicitors, medical practitioners, university and secondary education teachers, and life science and health professionals. In India, very high graduate intensity occupations also included architects, engineers, accountant, auditors, mathematicians, statisticians and senior administrators, directors, and managerial executives, IT professionals and surprisingly poets, authors, and journalists. The last three qualified for high graduate intensity occupations in the UK.

**High graduate intensity occupations:** There were just a few occupations in this group and the number of occupations saw a shift from high to very high intensity category (Table 1). They were mainly what could be termed as associate professionals such as engineering, medical, and scientific technicians, social scientists and economists and technical salesmen. The occupation groups that included primary and middle school teachers were similar in both the countries.

**Medium graduate intensity occupations:** Among the

**Table 1: Structural Shift in Occupations during 1999-2010**

	1999-00	2009-10
<b>Upward shift</b>		
Life science and health professionals	High	Very High
Teaching associate professionals	High	Very High
Customer services clerks	High	Very High
Physical and engineering science associate	Medium	Very High
Models, salespersons and demonstrators	Low	Medium
Subsistence agricultural and fishery	Non-grad	Low
Machine operators and assemblers	Non-grad	Low
Drivers and mobile plant operators	Non-grad	Low
<b>Downward shift</b>		
Other professionals	High	Medium
Precision, handicrafts, printing	Low	Non-grad

**Source:** Computed from unit records of NSSO Employment and Unemployment Survey, 1999-00 and 2009-10 by NCO 2004 classification in both years.

groups found in the UK, only the marketing and sales managers were identifiable as a medium graduate intensity occupation in India. Nurses and midwives, who qualified as medium graduate intensity occupations in India were in low graduate intensity occupation group in the UK. Other medium intensity occupations were working proprietors (self-employed enterprises), village officials, artists and composers, transport conductors, and post- and telephone-related occupations.

**Low graduate intensity occupations:**

Most of the incumbents in these occupations, except for a small percentage, were non-graduates, for example, ticket collectors and checkers, merchants, shopkeepers, salesmen, service workers not elsewhere classified, chemical processors, rubber, plastic product, and paper and paper board workers. It also included farm plantation and dairy workers and metal processors.

**Non-graduate occupations:** More than three-fourth of the working population in India was engaged in non-graduate occupations. This made sense given the low level of graduate population in the country. A very large proportion of these were engaged in agriculture as cul-

tivators, agricultural and plantation labourers, forestry and fishing workers. The non-agricultural non-graduate occupations were mainly in the manufacturing sector, street trading, workers in hotels and restaurants, and personal services such as housemaids, hair dressers, construction workers and other manual labourers.

**Changes in India's Graduate Occupations**

As noted above, very few occupations moved across graduate intensity categories over the decade (Table 1). Eight out of the twenty seven occupation categories<sup>26</sup> have shifted from a comparatively lower graduate-intensive category to a higher graduate-intensive category. Among these two-digit occupation groups, life science and health professionals, teaching associate professionals, and customer service clerks were in high graduate intensity occupations with 40 to 59 per cent graduate workers in 1999-2000. These occupations required more than 60 per cent graduates in 2009-2010. At least three non-graduate-intensity occupations moved to low graduate intensity, including some machine operators. Upgrading technology in even simple machines could explain this shift. Only two occupation groups in the two-digit classification of the twenty seven occupation groups, actually showed a decline in graduate density over the decade.

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More than three-fourth of the working population in India was engaged in non-graduate occupations. This made sense given the low level of graduate population in the country.

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Changes in occupation over time were then examined in two ways: by comparing the age cohorts 21-35 years and 40-54 years for the year 2009-10 and the same age cohorts between 1999-2000 and 2009-10 using NSSO Employment and Unemployment Survey data (Table 2).

There was considerable change in graduate intensity in occupations within the categories defined. For 21 years and above, overall there was decline in non-graduate occupation of the employed population from 78 per cent in 1999-00 to 71 per cent in 2009-10 (Table 2, column 5). Thus, nearly 29 per cent of the employed persons were in graduate occupations in 2009-10. Among the graduate occupation categories in 2009-10, about 3 per cent were in very high and high graduate-intensity; 13 per cent were in me-

<sup>26</sup> As per National Occupational Classification (NCO 2004) of 30 occupation categories by graduate intensity

**Table 2: Graduate Intensity Occupational Classification, 1999-2000 and 2009-10 (Average % of graduates in each group)**

Occupations by Graduate Intensity (1)	Age Cohorts		21 years and above	
	1 (21-35 yrs.) (2)	2 (40-54 yrs.) (3)	All (4)	Percentage Distribution (5)
<b>1999-00</b>				
Very High >=60%	73.2	71.7	71.9	<b>1.4</b>
High 40-59%	48.7	41.2	44.0	<b>5.4</b>
Medium 15-39%	20.6	27.6	23.0	<b>3.8</b>
Low 7-14%	10.3	7.7	8.9	<b>11.3</b>
<b>Sub-Total Classes</b>	24.0	25.6	24.1	21.9
Non-graduate	1.9	1.0	<b>1.5</b>	<b>78.1</b>
<b>Total</b>	<b>6.7</b>	<b>6.9</b>	<b>6.4</b>	<b>100.0</b>
<b>2009-10</b>				
Very High >=60%	71.7	63.9	72.1	<b>2.7</b>
High 40-59%	53.2	44.1	47.4	<b>3.0</b>
Medium 15-39%	20.8	20.1	19.6	<b>13.1</b>
Low 7-14%	7.6	7.0	7.0	<b>10.6</b>
<b>Sub-Total Classes</b>	27.2	24.6	22.7	<b>29.3</b>
Non-graduate	2.4	1.5	<b>1.8</b>	<b>70.7</b>
<b>Total</b>	<b>10.4</b>	<b>8.6</b>	<b>8.0</b>	<b>100.0</b>

**Source:** Computed from unit records of NSSO Employment and Unemployment Survey, 1999-00 and 2009-10 by NCO 2004 classification in both years.

dium-intensity category, and about 11 per cent were in the low-intensity occupations. It was the medium graduate intensity occupations that registered the largest (roughly 10 percentage point) increase in employed population over the decade (Table 2, column 5).

A look into the changes in actual occupation within these categories helps in understanding the nature of changes in demand for higher education.

The *very high graduate intensity* occupations, by definition had the highest percentage of graduates, about 63 to 73 per cent in both years and both age cohorts. It appears that these occupations retained their need for higher educated workers. These included occupations that have consistently required highly qualified people, such as solicitors, medical practitioners, university teachers, and others noted above. While Table 1 shows a shift in some high to very high graduate intensity occupations, Table 2 demonstrates that in 2009-10, the younger cohort had an 8 percentage point increase in graduate intensity than the older cohort. Some of these occupa-

tions were health professionals and customer service clerks. The health sector and the customer services, (provided both face-to-face and on telephone), have increased their use of equipment and gadgets, which partly explains the increasing need for graduates.

The *high graduate intensity* occupation category was the only group that saw a classic near 10 percentage point increase in graduate intensity as was expected in the UK study highlighted above by both criteria, across the decade and within cohorts. Graduate intensity of the younger cohort *vis-à-vis* the older one rose by 8-9 per cent in both 1999-00 and 2009-10. Among the younger cohort, graduate intensity rose from 49 to 53 per cent over the decade between 1999-2000 and 2009-10. This increase in the demand for higher education particularly among the younger cohort was for technicians, technical salesmen, and primary and middle school teachers. There was definitely a change in the demand for better and highly qualified people among these occupations. It can thus be inferred that with the advent of the knowledge economy in India, the jobs of technicians, salesmen, and school teachers were being upgraded to match the need for better qualified personnel.

The *medium graduate density* occupations are a perplexing category. It was the only category that had registered a 10 percentage point increase in the share of employed over the decade (Table 2, column 5). However, it showed a 7 percentage point decline in graduate intensity in the younger cohort compared to the older cohort in the decade 1999-2000, but retained the same (20%) in both cohorts in the decade 2009-10. There was also a decline in graduate intensity among the older cohort over the decade (Table 2, column 3). They were mainly self-employed entrepreneurs, nurses and midwives, transport conductors, and people employed in post- and telephone-related occupations. Thus, while small enterprises and these other occupations grew over the decade, the demand for graduates declined. This can be viewed as a labour market deepening through extension and penetration into new areas, when there is an enhanced diversity of demand and supply of skills<sup>27</sup>. It could mean that graduates are vacating this field and they are being taken up by less formally educated, but people with technical or entrepreneurial skills. Nursing

<sup>27</sup> Basant, Rakesh and Rani, Uma (2004). Labour market deepening in India's IT: An exploratory analysis. *Economic and Political Weekly*, 39(50), 5317-5326.

in the UK showed lower graduate intensity and a decline in intensity in India, which could be partly attributed to the increasing intake of paramedical staff in India possibly without the mandatory nursing degree. There is no simple explanation for what is happening to these occupations, and a lot more analysis and detailed data would be required to understand skill intensity in these medium graduate intensity occupations, particularly as it appears to be absorbing more workers.

The low graduate intensity occupations, which had between 7 and 10 per cent graduates, saw nearly 3 percentage point higher graduate intensity among the younger age cohort in 1999-2000. However, over the decade, the graduate intensity declined mainly among the younger cohort. These occupations included ticket checkers, shopkeepers, and production workers in chemical processing, rubber, plastic products, and paper and paper board. They also included workers in farm plantation and metal processors, occupations that actually saw a decline in graduate intensity in the younger cohort. It is possible that while the first set included occupations that needed new skill sets in the new economy, the second were occupations from where the young and more educated were moving out.

## Conclusions

India has seen a rapid increase in higher education in the last decade. The question that we have sought to address here is whether there is demand for higher educated persons – graduates and post graduates, or are we facing a situation of overeducated youths *vis-à-vis*

the requirements of employers? This issue is addressed innovatively from the point of view of changes that are taking place in the nature of jobs and the labour market.

Only two out of the twenty seven occupations have witnessed an increase in graduate intensity. With the advent of the knowledge economy, occupations with a demand for graduates, mainly engineering, medical and scientific technicians, technical salesmen, and primary

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With the advent of the knowledge economy in India, the jobs of technicians, salesmen, and school teachers were being upgraded to match the need for better qualified personnel.

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and middle school teachers, have shown an increased preference for better and highly qualified people. The medium graduate intensity occupations include nursing, and such professionals as working proprietors (self-employed enterprises), village officials, artists and composers, and transport conductors showed a decline in graduate intensity. Though difficult to interpret, this could mean a diversification or deepening of skill intensity in these occupations with graduates vacating the space for less

formally but technically skilled or entrepreneurial people. The low graduate intensity occupations saw a large increase in the percentage of graduates in the younger cohort in 2009-10. This included jobs of ticket collectors and checkers, merchants, shopkeepers, salesmen, and service workers. The nature of activities in these occupations might have changed so as to require a more qualified workforce. This definitely indicates an increase in demand for a better educated workforce in many occupations in recent years. Overall there is a churning of the nature of jobs and the graduate labour market in India, though over-education in some occupations cannot be ruled out. 

## Vocational Education: Skillful Use of Public Funds?

Ankur Sarin

For an academician, there are two sure signs of movement of resources into a social sector: the first is a request to participate in the conduct of training programmes; and the second is when old students coincidentally call up to seek advice on their prospects of a

career switch into that sector. And that is what has happened in the case of vocational education. Hardly anyone remotely connected to education believes that the “vocational space” in India today is not buzzing. Organizations like *Pratham* that have contributed im-

mensely to the area of primary education, perhaps finding that mission fulfilled, have also entered the “vocational space” with significant investments from the National Skill Development Corporation (NSDC). And, if the cheerleading rhetoric is to be believed, perhaps the increased attention is for good reason. Mainstream media outlets are populated by stories celebrating a “demographic dividend” that awaits India if it could only overcome its “skill deficit”. As an example:

*“For India, more working people means more income. More income means a more prosperous nation. For a country that will become a middle income nation - per capita annual wages of \$1,200, translating into Rs 4,500 a month - by the end of 2010/11 after more than a century of penury, its young population presents a never-before opportunity for transition.”<sup>28</sup>*

*That is, if it can get its people readied for work. If it can train its young to man global standard factories. If it can get its young to be smart accountants. If it can turn its young into efficient yet friendly front office staff at super markets. If it can have its young tell the difference between a dovetail joint and a lap joint in a well-crafted wooden table. If it can produce enough nurses and doctors to charm and heal the world’s increasing old. If it can...”<sup>29, 30</sup>*

In this monolithic image of India, with no conflicts of interest within, the seemingly logical narrative leaves out the question of who are the likely recipients of this promised “dividend”. Or perhaps, it assumes that the “dividend” will be shared equally among all its citizens? If not equally, perhaps the assumption is that it will benefit those who need it more? Or perhaps, the belief is

<sup>28</sup> <http://businesstoday.intoday.in/bt/story/manpowers-employment-outlook-survey-indian-companies-plan-aggressive-hiring/1/13745.html>

<sup>29</sup> Bhattacharya, Saumya and Pande, Shamni (2011). Making 500 million people employable - Business today - Business news. *Business Today*, April 3, <http://businesstoday.intoday.in/story/indias-skill-revolution-training-people-to-make-them-employable/1/13909.html>.

<sup>30</sup> <http://businesstoday.intoday.in/bt/story/job-visas-only-for-highly-skilled-salaried-foreigners-govt/1/9765.html>

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Despite the obvious conflicting interests between labour and capital, the interests of industry owners are the only ones that are represented. Given this it is natural that only a particular vision of public interest will dominate decision making in an organization that by all measures seems unaccountable to any external agency.

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that the process to divide the “dividend” will be representative of the conflicting interests? If neither of these assumptions is true, then perhaps it would be fair to ask for a re-think of the manner in which public resources are being diverted to the important task of skill-upgradation.

The National Skill Development Corporation (NSDC) that represents the flagship programme for skill-upgradation in India serves as an appropriate case for

us to investigate these assumptions. As is well known, the NSDC is a Section-25 company with an equity base of Rs 10 crore that is jointly shared by the government (49%) and the private sector (51%). In return for a “management fee”, the NSDC essentially serves as the “investment manager” for the government-owned trust that houses the National Skill Development Fund (NSDF). The NSDF has a corpus of Rs 2,500 crore from public funds. The beneficiaries of the trust are supposed to be “the youth of India which require skill development and vocational training”.<sup>31</sup>

The governance structure of the NSDC clearly exemplifies which actors are currently considered legitimate custodians of public money and have the powers to define what public interest is. As the NSDC website

states, “the 13-member board has four government nominees, one of whom is the chairman of the corporation (from the private sector) and eight are private sector members.”<sup>32</sup> The previous employers of the Managing Director, the 13th member of the board, were the Society of Indian Automobile Manufacturers (SIAM) and the Confederation of Indian Industry (CII) (since 1986).<sup>33</sup> Now considering the interests that are not represented and the voices that are not heard in the governance, there are no representatives from labour – organized or unor-

<sup>31</sup> National Skill Development Coordination Board, n.d., [http://planningcommission.gov.in/reports/genrep/rep\\_csa.htm](http://planningcommission.gov.in/reports/genrep/rep_csa.htm).

<sup>32</sup> <http://www.nsdcindia.org/about-us/organization-profile.aspx#b>

<sup>33</sup> <http://www.nsdcindia.org/news-events/nsdc-appoints-dilip-chenoy.aspx>

ganized, none from civil society, and none from the sectors that provide the largest employment – agriculture and handlooms. The assumption perhaps being that the latter two sectors do not need any skills and in any case do not require representation in the flagship intervention.

The issue of concern is not specific individuals or personalities, instead the issue is that despite the obvious conflicting interests between labour and capital, the interests of industry owners are the only ones that are represented. Given this it is natural that only a particular vision of public interest will dominate decision making in an organization that by all measures seems unaccountable to any external agency. To understand how the lack of diversity in representation and ignorance of voices might matter, let us turn to decisions made by the NSDC – starting with the choices of sectors that have been emphasized by them.

If a Martian, schooled in nothing but in the basic laws of supply and demand, were to land in India looking for work, we would expect the Martian to unhesitatingly choose to work in one of the sectors targeted for skill upgradation by an organization like the NSDC. After all if there is a deficit in a market, one expects prices to be rising. And in this case, the price refers to the wages or other forms of compensation that the Martian would hope to earn. Unfortunately for the Martian, there is a high probability that this would turn out to be a rather poor way to choose. We may not have much sympathy for a Martian, but perhaps we should for the Indian youth who might be investing money in being skilled for work in industries that do not necessarily promise them a better future.<sup>34</sup> We should also perhaps have sympathy for people working in sectors like handloom that are consciously being deskilled.

<sup>34</sup> The NSDC model quite explicitly believes in charging a fees for skill development and hence a person being trained necessarily has to bear a cost for the training. Minutes of the Ninth Meeting of the National Skill Development Coordination Board (NSDCB). December 19, 2011, [http://planningcommission.gov.in/reports/genrep/skilldev/9th\\_NSDCB.pdf](http://planningcommission.gov.in/reports/genrep/skilldev/9th_NSDCB.pdf).

Take, for example, the sectors targeted by the NSDC for which historic data is easily available from the Annual Survey of Industries in India: Automobiles, Textiles, Chemicals and Pharmaceuticals, Building Hardware, Food Processing, Electronics, Leather, Gems/Jewellery and Furniture. An examination of the data reveals that in six of the nine sectors, there was a decline in real wages for workers between the years 2000-01 and 2007-08<sup>35</sup>. Moreover, the decline was greater than the average across all industries. In all but one, there has been an increase in the share of contract workers in the total labour force. For example, in the automobiles sector where reports commissioned by the NSDC project some of the highest skill gaps,<sup>36</sup> there has been an increase of nearly

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The relationship between workers and owners and managers of capital need not be a zero-sum game, where the workers' wages are simply a cost to the owner. In fact, if the right set of skills are recognized, invested in, and rewarded, we should achieve outcomes that reward all concerned.

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25 percentage points in the share of contract workers. Accompanying this decline in real wages and increased insecurity for workers has been a significant increase in the share of wages going to non-workers as well as increases in real compensation. In the automobiles sector, for example, while the compounded rate of fall in real wages per year for workers was around 2 per cent, the rate of increase for non-workers was over 3 per cent during the first eight years of the new century.

Is there a rationale for investing public funds in training youth for industries where the prospects as a worker are getting worse? Based on the

empirical evidence above, I would argue that it is legitimate to ask what are the investments for? Are they essentially to increase the supply of skilled labour and thereby keep labour costs low?. If this indeed is the primary objective, then it is a poor one for public funds in today's labour market. Moreover, the argument sounds rather specious when declining labour compensation is also accompanied by an increase in non-labour compensation and profits.

Ostensibly, what drives the choice of the sectors is the projections of the number of jobs a sector is likely to create in the future. Even if we ignore the quality of these

<sup>35</sup> Author's computations

<sup>36</sup> For example, see NSDC Annual Report, 2009-10.

jobs for the time being, it is important to understand that there is nothing natural or given about these projections. The projections are contingent on expectations of demand and the likely cost structure of an industry. One of the most effective ways for an industry to keep its costs low is to externalize them as much as possible. And their ability to do so depends in large part on government regulations and policies. Therefore, to make arguments for increased government support on the basis of projections that themselves depend on government policies is a rather disingenuous attempt to create a self-fulfilling prophecy.

In terms of outcomes of the NSDC itself, it is perhaps too early to judge. However, the information available is not very reassuring. The word “wages” finds no mention in the Chairman’s letter.<sup>37</sup> The emphasis is on funds disbursed, the number of institutions supported, centres opened, and the number of people trained. Unfortunately, these are mere indicators of inputs and outputs. Government bureaucracies and the evaluations they conduct are criticized for ignoring outcomes. How has the NSDC fallen into this trap?<sup>38</sup>

In the only information that the Annual Report contains about compensation, it points to the “Student Success” of a trainee in an NSDC-funded organization, who obtained a job with a monthly salary of Rs 5,300 per month. It is hard to extrapolate from a sample of one, but if a monthly salary of Rs. 5,300 is treated as a success, then one wonders what the other side of the range would look like. The NSDC does promise to measure “social parameters” in its monitoring policy, but the only ones that refer to

worker welfare are “% trainees placed within 3 months” and “median % increase in salary (only for up-skilling)”. It would be a good start when this information is put in the public domain. But one wonders why salary information cannot be collected and revealed for all those being trained (not just a sub-group) and whether or not any effort will be made to track the labour market outcomes of trainees over an adequate period of time. After all, one would assume that these outcomes should be the primary yardstick to evaluate the optimal utilization of public funds.

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If worker welfare is not the guiding principle behind decisions about public investment in skills – as it unfortunately appears from the choice of sectors made by the NSDC, and choices are governed by industrial policy, then the criteria being used to choose one sector over another should be made explicit. The criteria cannot be an arbitrary projection of prospects alone, since as argued above, the prospects of any industry are in large part driven by state regulation and support. Those making decisions should, for example, explain why an industry like automobiles – that, as much modern thinking today argues, promotes an unsustainable way of life, should receive further public support – over a sector like handlooms, that not only seeks to do the exact opposite but also has both a record and promise of being able to generate dignified employment for millions.<sup>39</sup>

The point here is not to dwell on a comparison between automobiles and handlooms, but to emphasize that ultimately policy making is about judgements driven by interests and values of those making policies. Therefore the manner in which these decisions get made and who has a voice in the process – in short, the governance structure – drive what decisions get made, who benefits, and who does not.

<sup>37</sup> *Transforming the Skill Landscape: NSDC Annual Report 2011*, NSDC Annual Report (NSDC, September 14, 2011), [www.nsdcindia.org/pdf/nsdc-annual-report2010-11.pdf](http://www.nsdcindia.org/pdf/nsdc-annual-report2010-11.pdf).

<sup>38</sup> This is not a new argument and is well recognized even within the government. For example, “Adviser to PM on PM’s NCS D ..stressed on the need for undertaking of outcome based rather than in input based training activities.” (“Minutes of the Ninth Meeting of the National Skill Development Coordination Board (NSDCB)”, December 19, 2011, [http://planningcommission.gov.in/reports/genrep/skilldev/9th\\_NSDCB.pdf](http://planningcommission.gov.in/reports/genrep/skilldev/9th_NSDCB.pdf).)

<sup>39</sup> Annapurna M., Syamasundari B., and Wiebe Bijker (2012). “Mobilising discourses handloom as sustainable socio-technology. *Economic and Political Weekly*, *xlvi*(25), June 23, 41-51.

## Bringing the Worker Back In

It is nobody's case that industry should not have a voice in the formulation and implementation of policies around vocational education. The issue is recognizing the conflict or tension between the interests of workers and owners and to ensure that adequate representation is given to all interests.

The relationship between workers and owners and managers of capital need not be a zero-sum game, where the workers' wages are simply a cost to the owner. In fact, if the right set of skills are recognized, invested in, and rewarded, we should achieve outcomes that reward all concerned. After all, a workforce that is better skilled, should also be a more productive one. However, for the relationship not to be a zero-sum, all three of these requisites – recognition, investment, and due acknowledgement – need to be in place. On social grounds, it is hard to defend a strategy that neglects or ignores any of these.

Were it not for the recent unfortunate events at Manesar, creation of skills would have been the only issue in the mainstream public discourse about the blue collar labour markets. Worker welfare has been relegated to the sidelines. The "problem" has too simplistically and too often been portrayed as lack of workers with the right skills and the "solution" has been skill-upgradation. The events that unfolded at Manesar, where a senior officer in automobile plant gruesomely lost his life because of conflict with labour suggests that the "problem" is far more complex and the "solution" not as straightforward. The labour market does not operate in an institutional vacuum in which power is distributed neutrally. In a globalized world, in which capital is believed to be a lot more mobile than it has perhaps ever been, the worker – no matter how skilled – is inherently at a disadvantage. Unfortunately, the state which sets the rules of the game in any market is equally vulnerable to this disproportionate distribution of power.

Are makers of policy, owners of capital, and society in general willing to accord these skills the status they deserve? The manner in which vocational education has been historically neglected in everything but rhetoric

suggests they are not. The manner in which policy is being currently formulated and implemented suggests that they are still not. The challenges to the state of vocational education in India have come from its poor quality or inability to match the needs of the industry. They have not come from its fundamentally discriminatory nature that binds individuals to a track of low wage outcomes. A "communications campaign that would aim at glorifying skills and the skilled workers"<sup>40</sup> that some reports suggest would cost Rs. 100 crore,<sup>41</sup> might make a lot of corporate sense, but it does precious little for the worker struggling to support a household with salaries like Rs.5,300 per month.

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The first step would be ensuring their representation in an organization like the NSDC. In doing so, we would not be retreating to the dark days of a socialist or a planned economy. Instead, we would be emulating the progressive practices of countries like Germany, that are universally acknowledged as being in the forefront of vocational education where "vocational training is guided not only by the requirements of the labour market, but also by the need for individuals to

acquire skills, knowledge and competences that enable them successfully to prove themselves on the labour market."<sup>42</sup>

## Why Should We Care? Why Now?

The primary reason why we should care is grounded in the idea of social justice: any measure of the usage of public funds has to begin with the benefits it provides to the neediest – people who society has failed in other ways. Second and perhaps more pragmatically, because

<sup>40</sup> *Transforming the skill landscape: NSDC Annual Report 2011.*

<sup>41</sup> Nanda, Prashant K. (2011). Govt plans Rs 100 cr ad campaign to promote vocational education - Economy and politics - Livemint.com. *The Mint*, March 23. <http://www.livemint.com/2011/03/23225439/Govt-plans-Rs-100-cr-ad-campai.html>.

<sup>42</sup> Ute, Hippach-Schneider; Krause, Martina; and Woll, Christian (2007). *Vocational education and training in Germany. Short description.* Cedefop Panorama Series (Cedefop (European Centre for the Development of Vocational Training), [www.bibb.de/dokumente/pdf/VET-in-Germany\(1\).pdf](http://www.bibb.de/dokumente/pdf/VET-in-Germany(1).pdf)).

undoubtedly there is a role for organizations like the NSDC that promotes the active participation of private players in vocational education and the need for “patient capital” to promote such participation. Even more important is to protect the goal of skill development, which successive governments have historically failed. It would be unfortunate if the sector gets mired in controversies after struggling hard to rise in the agenda of policy makers. Those who find the latter prospect unimaginable, need to only look at the experience of the microfinance sector.

A recent article in a business-weekly gushes about the prospect that vocational education is expected to be a “\$20 billion annual opportunity.. outside the regulatory framework” and that “with the huge government expenditure lined up, there are likely to be more takers”.<sup>43</sup> This is a sentiment that is echoed by the Managing Director of NSDC.

“Skill development and advanced management courses are not regulated. There is a lot of private sector money coming in this space. There are a lot of private equity funds which are interested in this space. We have had discussions with

around 20 PE funds so far. This is an exciting space and in the next few months you will hear some interesting news.”<sup>44</sup>

It was not too long ago that microfinance was considered the silver bullet in the fight against poverty. It attracted significant investments from private capital along with the necessary impetus and deliberate lack of regulatory oversight from governments around the world. While this is not the place to probe deeply into the reasons for its fall to shame, there are broadly two that need to be emphasized. First, poverty is far too complex for a uni-dimensional tug like credit to unravel the knots that keep the poor in poverty. Unfortunately, in the quest to attract increased funds and attention, proponents of microfinance over-sold what it could achieve. Second, there were important issues of governance that were ignored or mindfully violated. When the bubble burst, the emperor was found to have no clothes.<sup>45</sup> The riches that microfinance was to bring to the poor were instead largely found in the hands of promoters and investors. The parallels with the current state of the vocational education sector should be clear for those truly interested in ensuring that Indians who need it the most, reap the dividends of a prosperous India. 

## Leadership Development for the Public Industrial Training System

Vijaya Sherry Chand and Mukul Vasavada

One of the paradoxes of the Indian growth story must surely be that the growth of GDP by more than seven per cent per annum over the last decade and a half was achieved when the proportion of the workforce which was formally skilled continued to be very small. The National Sample Survey (NSS) 61st Round (2004-05) showed that in the age group 15-29, only about 2 per cent had received formal vocational

training while about 8 per cent had received non-formal vocational training.<sup>46</sup> This implies that most of those entering the workforce did so without any kind of formal vocational training, and that on-the-job training, or learning on the job, has been the preferred mode of training. So, is the strident policy rhetoric about the need for skilling the workforce and for closing an assumed skill-gap warranted? Is the focus on skill development ig-

<sup>43</sup> Chatterjee, Dibyajyoti (2011). A skilful partnership. *Business World*, October 31.

<sup>44</sup> Pathak, Kalpana (2011). Q&A: Dilip Chenoy, CEO & MD, NSDC. *Business Standard India*, May 5, <http://www.business-standard.com/india/news/qa-dilip-chenoy-ceomd-nsdc/434518/>.

<sup>45</sup> Sriram, M. S. (2010). Commercialisation of microfinance in India: A discussion of the emperor's apparel. *Economic and Political Weekly*, June 12, <http://www.epw.in/special-articles/commercialisation-microfinance-india-discussion-emperors-apparel.html>.

<sup>46</sup> This is in stark contrast to the trained workforce proportions (60-96% in the age group 20-24) in industrialized countries.

noring the way our economy is structured and the importance of the unorganized sector?

These questions became important when the Indian Institute of Management, Ahmedabad, was asked to design a leadership development initiative for the government-run Industrial Training Institute (ITI) system in 2009-10. A consideration of the questions also led to a realization that the leadership programme had to be located within two contextual arenas — the emerging world of employment for ITI graduates and the concept of excellence that has been a cornerstone of policy efforts to upgrade government-run ITIs in the country during the Eleventh Five Year Plan period (2007-12). In this paper, we deal with these two arenas. We contend that a more nuanced understanding of the emerging labour markets, and a more diversified understanding of excellence that goes beyond competitive excellence, have to underpin any effort to improve leadership capabilities at the level of the individual industrial training institute. The former includes preparing graduates for more informalized employment and a strong unorganized sector, and the latter includes a sharper focus on creative and versatile excellence.

### Policy Initiatives and Skill Development

We have a National Policy on Skill Development, approved in 2009, and a National Skill Development Mission. The institutional structure that supports the Mission includes the Prime Minister's National Council, which first presented the by now well-known target of 500 million skilled people by 2022 (almost half our current population), and the National Skill Development Coordination Board and the National Skill Development Corporation (NSDC). Leaving aside the questions raised about the logic behind the target of 500 million (see, for instance, King, this issue), these initiatives have brought in a welcome focus on the need to accelerate skill training. Apart from the backlog of the large numbers of untrained people especially in the unorganized sector, our current systems have a training capacity of only

about 3.1 mn for the 13 mn that get added to the labour force every year. Thus, the target of our national policy of increasing the vocational training capacity to about 15 million does make sense. However, the kind of human development that our training establishment can generate has to consider the nature of the employment that is now being generated in the economy — the informal employment in the unorganized sector in the industrial and service sectors in India. We therefore turn to this contextual factor.

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### Informal Employment and the Unorganized Sector

We begin with a brief consideration of the path-breaking report produced by the National Commission on Enterprises in the Unorganized Sector, under the chairmanship of Dr. Arjun Sengupta<sup>47</sup>. This report, which uses the terms informal and unorganized interchangeably, defines the unorganized sector as consisting “of all unincorporated private enterprises owned by individuals or households engaged in the sale and production of goods and services operated on a proprietary or partnership basis and with less than ten total workers.” It also defines unorganized workers (in informal employment) as those “working in the unorganised enterprises

or households, excluding regular workers with social security benefits, and the workers in the formal sector without any employment/ social security benefits provided by the employers.” Using these definitions, the report presents a picture of how our economy is organized (Table 1).

Thus, in 2004-05, 86 per cent of the 456 million workforce was in the unorganized sector. Agriculture accounted for 251.7 million out of the 393.2 million, leaving 141.5 million (36%) in the non-agriculture sector. Interestingly, the share of the informal/unorganized worker in the organized sector is a huge 46.2 per cent. The report also shows that between the NSS Rounds of 1999-2000 and 2004-05, total employment in the economy increased by about 60 million (about 15%), from 396 million to 456

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<sup>47</sup> NCEUS (National Commission for Enterprises in the Unorganised Sector) (2009). *The challenge of employment in India: An informal economy perspective, Vol. 1.*

**Table 1: Total Employment (million), 2004–2005 and 1999–2000 (% in brackets)**

	Informal/Unorganized Worker	Formal/Organized Worker	Sector Total	Sector Percentage
<b>2004-05</b>				
Informal/ Unorganized sector	391.8 (99.6)	1.4 (0.4)	393.2 (100.0)	86.27
Formal/ Organized sector	28.9 (46.2)	33.7 (53.8)	62.6 (100.0)	13.73
Worker total	420.7 (92.3)	35.0 (7.7)	455.7 (100.0)	
<b>1999-2000</b>				
Informal/ Unorganized sector	339.7 (99.5)	1.8 (0.5)	341.5 (100.0)	86.15
Formal/ Organized sector	23.1 (42.1)	31.8 (57.9)	54.9 (100.0)	13.85
Worker total	362.8 (91.5)	33.6 (8.5)	396.4 (100.0)	

Source: Based on Table 2.3, NCEUS (2009), p. 13.

million, but the organized workers increased only marginally, from 33.6 million to 35 million. Thus, the increase can only be accounted for by the rise of the informal/unorganized worker. Also, the organized sector increased from 54.9 mn to 62.6 mn (about 14%). That is, even in the organized sector, the rise of the informal/unorganized worker is evident.

To quote from the report, *“What this means in simple terms is that the entire increase in the employment in the organised or formal sector over this period has largely been informal in nature i.e. without any job or social security. This constitutes what can be termed as informalisation of the formal sector, where any employment increase consists of regular workers without social security benefits and casual or contract workers again without the benefits that should accrue to formal workers”* (p.14, italics in original).

The report also notes that the flexibility of employment and tertiarization of employment (outsourcing services in the manufacturing sector) may be reasons for the lack of growth in the formal sector employment and the rise of the informal worker and the rise of informal employment in the organized sector. At the same time, the organized industrial sector has shown an increase in gross value added per worker, indicating rising capital intensity. At least, as far as the private sector is concerned, the argument seems to be that entrepreneurs have taken the capital intensity route

because of labour market rigidities and the various uncomfortable rules and regulations. Of special interest is the contract labour-related regulation, which reduces the

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Between the NSS Rounds of 1999-2000 and 2004-05, total employment in the economy increased by about 60 million, from 396 million to 456 million, but the organized workers increased only marginally, from 33.6 million to 35 million. Thus, the increase can only be accounted for by the rise of the informal/unorganized worker.

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flexibility available to the organized sector. However, the report points out that though lack of labour reforms may not be a significant barrier to growth of organized employment, a perception that labour laws are restrictive, will only encourage informalization. Other reasons for the rising capital intensity include the product composition of exports in favour of higher capital intensity, and the rising demand for goods demanded by the rising middle class – goods which are more capital-intensive. Cost of capital, in contrast to labour costs, has also fallen, leading to substitution – this, in spite of real wages of workers remaining stagnant.

What the above implies for training is that the unorganized sector will continue to be a significant generator of employment of the self-employment

and casual kind, and that the nature of employment generated is likely to continue to be largely informal, with even the growth in the organized sector showing a fair degree of informalization, with its attendant characteristics of low quality of work conditions and vulnerabilities. How does this matter for vocational training institutes? Our case studies of Industrial Training Institutes (ITIs) indicate that these institutes are mostly unaware of the emerging labour markets and the kinds of employment being generated. As a result, edu-

cational practice is not informed by developments in the markets which ITI graduates enter; it is more likely to involve a standardized, historically-entrenched curriculum that has the formal sector in mind; it is also likely to be undecided whether to train for self-employment or for the kind of informal labour that is in demand. For instance, some institutes conduct employment surveys, but the results of these studies do not capture the quality of the work conditions of the graduates or the implications of the graduates forming part of a 'floating' population of workers, always subject to the vulnerabilities that accompany informalization. Preparing graduates for the unorganized sector would involve a mix of attitudes and abilities that would fit into a very small enterprise – run by an individual with very few workers; self-employment would mean a wholly new entrepreneurial focus, which will take away from the historically well-entrenched 'trade'-focused training. Leaders in the ITI system, therefore, now have to be more market-oriented and more responsive to the labour needs of local economies.

### **Why Should Employers Prefer Trained Graduates?**

At a broader level, the question should be, why would employers who have been happy with low-skilled (not formally trained) manpower, now find diploma or certificate holders more attractive? Some will point out that if informalization is the emerging trend, and real wages of trained manpower are stagnating, persons with higher qualifications are likely to be preferred. People more critical of employer behaviour in the country will point out that giving in to informalization is further going to erode worker power and dilute the quality of work conditions – employment, social, and welfare security. This is not the place to enter into this debate, but the short answer is that there is no clear answer; the Skill Development Policy and the official institutional framework that supports it seem to take it as an article of belief that the mindsets of employers will change towards willingness to employ trained manpower – if the supply is predominantly trained manpower, then the employers have no choice; thus would run the argument. It should be re-empha-

sized that the visible trends towards informalization make this choice easier to accept and implement. Now, to return to the questions with which we began. The policy rhetoric about skilling the workforce does not consciously address the issue of increasing the share of formal employment in the organized sector. Nevertheless, implicit in its articulation is the assumption that the growing informalization and the dominance of the unorganized sector will ease the absorption of trained manpower in an economy which is showing rising capital intensity. This, which some would even term an unhappy marriage between 'flexible employment' and the rising power of entrepreneurs, paves the way for the rise of new institutions of vocational training and new approaches to training.

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ITIs are mostly unaware of the emerging labour markets and the kinds of employment being generated. As a result, it is likely to be undecided whether to train for self-employment or for the kind of informal labour that is in demand.

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### **Rise of the Services Sector**

The Skill Development Mission identified ten high growth sectors in manufacturing and ten in manufacturing. Automobile and auto components; electronics hardware; textiles and garments; leather and leather goods; chemicals and pharmaceuticals; gems and jewellery; building and construction; food processing; handlooms and handicrafts; and building hardware and home furnishings, were the manufacturing sectors to be stressed. IT; ITES-BPO services;

tourism, hospitality and travel; transportation and allied fields; organized retail; real estate services; media and allied services; healthcare services; banking/insurance and finance; and education/skills development services, were service sectors identified for attention. From Table 3.1 (p. A52) of the Economic Survey (2011-12)<sup>48</sup>, one can see that employment in industry in the public organized sector was 17.9 mn in 2010, in the private sector it was 10.8 mn, for a total of 28.7 mn in the organized sector. Manufacturing, with 5.18 mn, accounts for 48 per cent of the organized private sector employment. However, overall, considering both the public and the private sectors (p. A52), out of the total organized sector employment, manufacturing accounts for 22 per cent and services (including construction) for slightly

<sup>48</sup> Government of India (Ministry of Finance). (2012). *Economic Survey 2011-12*. Accessed on August 25, 2012, <http://indiabudget.nic.in/index.asp>.

more than 68 per cent; agriculture and mining/quarrying account for the rest. Employment in the industrial sector (including the unorganized sector, and counting construction under industry) was about 100.7 mn in 2009-10 (p. 202). Here again, the pattern is likely to be similar. The share of services in 2011-12 (excluding construction) in GDP has also been increasing, to 56.3 per cent in 2011-12 (p. 228). If construction (following WTO/RBI norms) is included, the share goes up to 64.4 per cent. For 2010, Trade (15.4%) and hotels and restaurants (1.5%) are significant; followed by financing, insurance, real estate, and business services (16.4%); community, social, and personal services (14.3%); construction (8.2%); and transport, storage and communication (7.7%) (p. 228). Thus, at a macro-level, a training focus on the services sector seems warranted; how institutes interpret local trends and develop curricula suited to the emerging services sectors in their local contexts, becomes an issue for the institutional leadership. This is what the National Policy implies when it calls for a demand-driven system which follows signals from the labour market. How do these developments in the broader economy, employment, and specific sectors influence the directions that government-run ITIs have been asked to take through the various Eleventh Plan measures to upgrade them?

### ITIs as Centres of Excellence and Private Sector Involvement

In spite of what has been indicated above about the preference of employers for on-the-job training or untrained personnel, the ITI system does constitute an important opportunity for vocational education of secondary schooling graduates. There are 2,034 state-run ITIs, with a capacity of 472,738, which are state-run, and another 7,384 private ITIs (earlier called Industrial Training Centres), with a capacity of 862,750.<sup>49</sup> Thus, about 78 per cent of the 9,418 institutes, and 65 per cent of the capacity, are in the private sector. It should be remembered, though, that most of the institutes in the private sector

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The Skill Development Policy and the official institutional framework that supports it seem to take it as an article of belief that the mindsets of employers will change towards willingness to employ trained manpower.

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are relatively young. Given that the unorganized sector has been an important contributor to employment over the years, it is reasonable to assume that most of the graduates in the past would have found employment here. In a study of 1,678 of its graduates (2007-09), one ITI (Sarkhej, Gujarat) found that 43 per cent were in employment, 30 per cent were self-employed, and about eight per cent unemployed; the rest were either studying further or apprenticed to some unit.<sup>50</sup> Unfortunately, the study did not go into the quality of work conditions and the nature of employment. The fairly high proportion of self-employed graduates, however, is significant.

In 2004-05, measures to upgrade 500 government ITIs in the country (100 ITIs with domestic resources and 400 ITIs with World Bank assistance) were announced. The objective of the first round was "to upgrade the existing 100 ITIs into Centres of Excellence (CoE) for producing multi-skilled workforce of world standard"; this was built around one industry or a specific cluster. Thus, the concept of excellence was introduced into the ITI system. The highlights of this scheme were introduction of one year-long multi-skilling courses (BBBT - Broad Based Basic Training) and advanced/specialized modular courses; multi-

entry and multi-exit provisions, and introduction of some form of public-private partnership in the form of Institute Management Committees (IMCs) which included private sector industry representatives. Various measures of internal and external efficiency were also laid down. The external efficiency indicators brought in a new dimension of assessing the labour market success of graduates and employer feedback. A second initiative aimed at funding 1,396 government ITIs (Rs. 2.5 crore interest-free loan per institute, payable over 30 years) for developing infrastructure for a variety of trades. Apart from curricular reform, a key feature of both these initiatives has been the involvement of private sector industry representatives in running government ITIs. Our case studies indicate that the experience

<sup>49</sup> [http://labour.nic.in/annrep/annrep1112/English\\_AR\\_2011-12/Annual%20Report%20English%201-33.pdf](http://labour.nic.in/annrep/annrep1112/English_AR_2011-12/Annual%20Report%20English%201-33.pdf).

<sup>50</sup> Sherry Chand, Vijaya and Vasavada, M. (2010). *Government industrial training institute, Sarkhej, Ahmedabad*. Indian Institute of Management, Ahmedabad, Case Unit, RJMC0009.

is mixed — while some IMCs have helped guide the institutes develop a market orientation<sup>51</sup>, most still have a long way to go in performing their roles of revenue generation and finding employment for ITI graduates. Nevertheless, the push towards market orientation has led to several implications for institutional development for the ITIs.

- The vocational education system with its traditional top-down and standardized orientation, was asked to acquire a dynamic and flexible approach to the curriculum. An ITI was encouraged to scan the local market environment for employable skills and with the help of member industries and the IMC, identify the specific trades that could be offered.
- An ITI principal now had more financial autonomy through IMC and could thus incur certain expenses. ITIs were also permitted to generate income through execution of jobs from industry. This has been significant in some cases.<sup>52, 53</sup>
- The ITI principal is expected to perform a leadership role keeping in mind the more complex set of internal and external stakeholders.
- As a part of the process aimed at developing the ITI as a Centre of Excellence, the principal and his team were expected to generate an Institutional Development Plan that would provide a vision as well as a future plan for the ITI.
- Though the initial plan for development of a Centre of Excellence was focused only on one trade or a cluster, it was expected that the spirit of excellence would pervade the other trades on offer.
- Curriculum revision: Many of the long duration (two year) programmes were replaced by short-term modules of 6 to 12 months each. Now the programme

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At a macro-level, a training focus on the services sector seems warranted; how institutes interpret local trends and develop curricula suited to the emerging services sectors in their local contexts, becomes an issue for the institutional leadership.

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is offered in the form of one year BBBT followed by two modules of six months, each focusing on the training specific to the trade. The flexibility is built in through provision of multi-entry-exit. Thus, a student may join with the intent of becoming a fitter but may switch the trade if he or she discovers after one year that some other trade is more relevant; or, the student may join work without completing the advanced modules. An individual working in industry with one-year BBBT, may decide to take a break from work to pursue advance training.

- BBBT is a significant innovation. This one-year long module is common to many engineering trades. The module offers six basic skills that an individual planning to work in an industrial organization should have (hand tools, machine tools, basic electricity, basic electronics, measurement and measuring instrumentation, basic computer skills). The idea is to ensure that the industrial worker is able to work across different disciplines and not develop a “silo mentality”.
- The focus on the market has also resulted in the establishment of placement cells at ITIs. Drawing on the experiences of other institutes, ITIs too have started the practice of inviting the employers for on-campus interviews. Use of information technology has been encouraged. Mobile phone and web pages (ITI homepage, social media like Facebook, etc.) have been deployed for connectivity and information dissemination in some ITIs.
- Another new demand made on ITIs is the Environment Management Framework that applies to the Centres of Excellence. The framework essentially seeks to create an environment for excellence. It covers the environment in all its aspects: adequate and appropriate space for the task of training, safe and comfortable working conditions, overall functionality of the building and infrastructure, adherence to national standards and guidelines, and campus ecology.

In effect, the Centres of Excellence innovation made many demands on the leaders of ITIs: a market orienta-

<sup>51</sup> Sherry Chand, Vijaya (2010b). *What makes for an effective institute management committee? The case of government industrial training institute, Aurangabad*. Ahmedabad: Indian Institute of Management, Ahmedabad, Case Unit, RJMC0012.

<sup>52</sup> Sherry Chand, Vijaya (2010a). *Government industrial training institute, Jalgaon*. Ahmedabad. Indian Institute of Management, Ahmedabad, Case Unit, RJMC0010.

<sup>53</sup> Sherry Chand, *op.cit.*

tion; skills in implementing a very new curriculum; networking with external stakeholders; a little more financial autonomy; and learning to work with industry representatives in managing their institutes. We contend that responses to these demands can be organized under a framework that disaggregates the concept of excellence into the kinds of excellence that an institute can aim for. A framework, like the one presented by Khandwalla<sup>54</sup>, allows us to identify the features of excellence most relevant to ITIs. The following discussion draws on the different kinds of excellence presented by Khandwalla<sup>55</sup>.

**Competitive organizational excellence:** Given the focus on internal indicators of efficiency, this kind of excellence, which has to do with being outstanding within a field of competitors *vis-à-vis* some clear-cut criteria – like pass percentage or drop-out, is easily understood by the principals. Unfortunately, this understanding also hinders the realization of other kinds of excellence.

**Creative organizational excellence:** This is an important dimension of excellence that reveals a commitment to pioneering, innovation, experimentation, discovery, and dynamic change. There are good examples of institutes from around the country exhibiting this kind of excellence<sup>56</sup>. Nevertheless, institutes in a public sector environment have to contend with the norms and guidelines of the Directorates of Technical Education, which may not always be conducive to innovation.

**Versatile organizational excellence:** The chief feature of this form of excellence is the desire and ability to meet the expectations of all the significant stakeholders of the organization. This is perhaps the most important form

of excellence relevant to stakeholders in the market or in industry.

**Institutionalized organizational excellence:** This is characterized by sustained high achievement over a long period of time on important performance parameters even when there is little pressure. It requires the institutionalization of good management practices, a high order of professional management, top management continuity and widespread commitment of the staff to a

vision of excellence, the core values related to this vision and long-term excellence. It also means focusing on the nature of communication, coordination, synergy, and leadership within work teams. Additionally, the institute needs to keep on learning and innovating in order to deliver value to customers. Some ITIs may be on the path to institutionalized excellence, but for many, it is a distant goal.

All these excellences are underpinned by certain leadership skills like communication and decision making. ITI principals, as managers, have been accustomed to communicating and making decisions in a bureaucratic environment. While creating and sustaining Centres of Excellence, they

will need to make many non-routine decisions that are discretionary in nature. Another key skill is developing networks and interfaces. Given these skills, and moving beyond competitive excellence, creative and versatile excellences are worthwhile areas to focus on. Institutionalized excellence will follow.

The understanding presented above of the concept of excellence and the Centres of Excellence initiative of the government formed the basis of the leadership development programme for principals of 400 ITIs which were covered under the second phase of the efforts to upgrade ITIs. The programme is underway at present.

## Conclusion

This paper has presented two contextual dimensions – the emerging world of employment for ITI graduates and the concept of excellence that has been applied to many government-run ITIs – that have informed the

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The rising capital intensity and a general trend towards more educational qualifications will demand a better trained workforce. The growing informalization and the power of the unorganized sector can only facilitate acceptance of this trained workforce, in preference to an untrained workforce.

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<sup>54</sup> Khandwalla, P. N. (1992). *Organizational design for excellence*. New Delhi: Tata McGrawHill.

<sup>55</sup> We do not consider Rejuvenatory Organizational Excellence here. This form, especially needed for turnaround, is especially important for many ITIs which find themselves in a sluggish situation arising out of poor leadership in the past and location in an unfavourable environment.

<sup>56</sup> Sherry Chand, *op.cit.*

design of a leadership development programme for ITIs. In spite of the existence of a large number of ITIs with a capacity of more than 1.3 million, only about 10 per cent of the annual addition to the labour force is addressed. That there is a need to significantly add to training capacities is beyond doubt – regardless of the preference for untrained workers among employers. The rising capital intensity and a general trend towards more educational qualifications (either secondary education or vocational training) will demand a better trained workforce. The growing informalization and the power of the unorganized sector can only facilitate acceptance of this trained workforce, in preference to an untrained workforce. Even within the ITI system, the excellence discussed above applies to only the government system, and the results of these initiatives may not be uniform.

## PROFILES OF CONTRIBUTORS

**Sunita Sanghi**, an officer of the Indian Economic Service, is working at a Senior Management Level as Adviser in the Planning Commission, Government of India. She has more than 25 years of experience in different ministries of the Government of India. At present she is looking after the work relating to preparation of National Five Year Plans and issues pertaining to Labour, Employment and Manpower. She has been deeply associated with the Coordinated Action on Skill Development and other labour matters. She has done her Masters in Economics from Delhi University, India and Masters in Development Studies from University of East Anglia, United Kingdom.

e-mail: [sunitasanghi1960@gmail.com](mailto:sunitasanghi1960@gmail.com)

**MV Subbiah** is currently the Managing Trustee of AMM the Family Foundation of Murugappa Group, and the Chairman of a newly formed public-private corporation called the National Skill Development Corporation (NSDC). He also serves on the Boards of Lakshmi Machine Works and National Stock Exchange. He is a 3rd generation member of the Murugappa family. He is the former Chairman of Murugappa Group and has played an active role in transforming a number of group companies such as Carborundum Universal in 1960's, T.I. cycles in 1970's and EID Parry in 1980's. He has been a recipient of the JRD Tata Business Leadership Award in 2002 and the National HRD Award in 1988. Birmingham University (U.K.) awarded him an honorary degree of doctorate in 2011. He was also conferred with the prestigious Padma Bhushan Award in 2012 for his contribution to Trade and Commerce.

e-mail: [subbiah@corp.murugappa.com](mailto:subbiah@corp.murugappa.com)

<sup>57</sup> Mehrotra, S. (2011). Skill development initiatives: Private-public partnership and private initiatives in India. *Network for Policy Research Review and Advice on Education and Training (NORRAG)*, 46 (Special Issue), *Towards a New Global World of Skills Development? TVET's Turn to Make its Mark*. Accessed on August 25, 2012, [www.norrag.org](http://www.norrag.org), pp. 19-21.

The quality of training imparted in the private training institutes has often been doubted<sup>57</sup>, though there are a few excellent role models in centres formally linked with the organized sector. Bosch Limited has opted for a three-year Apprenticeship Scheme for implementation at their training centre in Bangalore. The centre regularly bags the gold medals for topping the National Council for Vocational Training examinations. Toyota Technical Training Institute, on the outskirts of Bangalore, has its own in-house three-year craftsman training programme. An awareness of the trends in the economy and the emerging labour markets and responding to them, an appreciation of the many kinds of excellence that an ITI can aim for, and a movement towards institutionalized excellence, would contribute to the development of a well-trained workforce. ✓

**RCM Reddy** is the Managing Director and CEO of IL&FS Education & Technology Services Ltd. (IETS) which entails Skills, Education, Clusters, Health and e-Governance. He has designed and implemented key cluster and skill development projects with a focus on engaging youth below poverty line through partnerships between government and industry. He also serves as Chairman of FICCI Skills Forum, co-chair of FICCI MSME Committee, and co-chair of UK India Skills Forum. He is a former Indian Administrative Service (IAS) officer and holds a Master's degree in Urban and Regional Planning and a Bachelor's degree in Civil Engineering.

e-mail: [reddyrcm@iflfsindia.com](mailto:reddyrcm@iflfsindia.com)

**Subhalakshmi Ganguly** heads Research and Policy at IL&FS Education and Technology Services, Ltd (IETS). She holds an M.A. in biological anthropology from Binghamton University and an M.Ed. in Curriculum and Instruction from UNLV. She was a Clinton Fellow for the American India Foundation, an alumnus of Teach For America and an Experimental Education Research Fellow at Vanderbilt University. She has worked with Women in Social Action in West Bengal, Tata Steel Rural Development Society in Jharkhand, and IKP Centre for Technologies in Public Health in Tamil Nadu. Her research interests are public health and education focus on issues regarding community engagement, social networks, and impact evaluation.

e-mail: [Subhalakshmi.Ganguly@iflfsindia.com](mailto:Subhalakshmi.Ganguly@iflfsindia.com)

**Gautam Sen Gupta** is Promoter Director of GRAS Education & Training Services Pvt Ltd. Based in Dubai, he is a Partner in Market Vision Research and Consulting Services FZ-LLC and Chairman of Brand Finance Middle East. He has earlier worked for 18 years with The Taj Group of Hotels on secondment from the Tata Administrative Service. He is an MBA from IIM Calcutta (1981) and holds an undergraduate degree in Engineering from IIT Kharagpur (1977). As a marketing professional,

he is a Fellow of the Chartered Institute of Marketing, UK. In his entrepreneurial capacity, he is a Past President (2007-2008) and Founder Charter Member of TiE Dubai Chapter.

e-mail: gautam@market-vision.com

**Jeemol Unni** is Director, Institute of Rural Management, Anand (IRMA), India. Earlier she was RBI Chair Professor in Economics at IRMA. She holds a Ph.D. and M.Phil. in Economics and undertook post doctoral research at the Economic Growth Center, Yale University, USA. She is a Director, Board of Governors, Women in Informal Employment, Globalizing and Organizing (WIEGO), UK and on the Editorial Board of the *Indian Journal of Labour Economics*, New Delhi. Her research interests are in labour economics, informal sector, education economics, social policy and gender. Her recent publications are *Social Income and Insecurities: A Study in Gujarat* (co-authored) New Delhi: Routledge, 2010 and *Flexibility of Labour in Globalizing India: The Challenge of Skills and Technology*, (co-authored) New Delhi: Tulika Books, 2008.

e-mail: Jeemol@irma.ac.in

**Sudipa Sarkar** is working as a Quantitative Research Associate at Young Lives – an international study of childhood poverty led by the Department of International Development at the University of Oxford. She has an MA in Economics from Rabindra Bharati University, Kolkata. Before joining Young Lives, Sudipa worked at the Indian Statistical Institute, the Indian Institute of Public Administration and the Institute of Rural Management, Anand. Her research has been related to economics of education, occupational changes, returns to education and informal employment in India.

e-mail: sudipasarkar86@gmail.com

**Ankur Sarin** is a faculty member at the Indian Institute of Management, Ahmedabad. He has a Ph.D in Public Policy from the University of Chicago. Prior to joining IIM-Ahmedabad, he was a Researcher at Mathematica Policy Research, Princeton where he worked on impact evaluations for many departments of the US Government including Education, Food Nutrition and Security and the Millennium Challenge Corporation. His research and teaching interests focus on evaluating policies and other instruments seeking to promote social justice.

e-mail: asarin@iimahd.ernet.in

**Vijaya Sherry Chand** is Professor at the Indian Institute of Management, Ahmedabad. He has worked in social development organizations for eleven years before joining academics. His current research interests include individual workplace innovation, the consequences of innovative work performance of teachers for learning climate and children's motivation, and domain mapping of individual educational workplace innovations. Other areas of interest include teacher development, educational attainment, ecological knowledge of school children, decentralized management of basic education, literacy, sustainable development planning, and social entrepreneurship. He is the present Editor of *Vikalpa*.

e-mail: vijaya@iimahd.ernet.in

**Mukul Vasavada** is an Adjunct Faculty in the Communications Area, IIMA. His areas of interest include organizational communication, organization and management of higher educational institutions, educational and professional socialization, and quality in education.

e-mail: mukul@iimahd.ernet.in