Research Note

Skills Information Base for Technical and Vocational Education and Training Policy*

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ABSTRACT

The information and evidence based decision making is imperative, particularly with regard to Technical and Vocational Education and Training (TVET) policy, considering its unique mandate to equip people with knowledge and skills required by the world of work. It is critical that TVET policy be drawn from a comprehensive information base which is established from the outset in order to inform the framework of TVET system. In India, the skill information base suffers from glaring deficiencies such as inadequacy of data, absence of fixed periodicity of collecting information, absence of effective legislation, incomplete information and non-availability of micro level/disaggregated information. Besides, the trend of increasing population in the younger age group and falling dependency ratio would need a paradigm shift in the skill development policy and it would be possible to harness the demographic dividend only if the country delivers more informed decision support system and effective policy intervention.

Introduction

More emphasis on general education by the policy makers and educational planners has placed Technical Vocational Education and Training (TVET) at the back stage in the educational landscape of many developing countries including India. This is further endorsed by the negative perceptions of the stakeholders which portray it as a low status and inferior education. However, during the last few years the increasing conviction in the value of skill development in enhancing employability and competitiveness

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along with the rhetoric of knowledge economy has augmented the prominence of this area on national and global agendas. The World Development Report (2007) makes reference to school to work transition as one of the five major transitions of life and the Global Monitoring Report (2012) is devoted exclusively to youth and skills. At the national level too, for decades confronted with several hurdles such as little relevance of the curriculum, lack of alignment between labour market and vocational courses, low education levels of the workforce and limited access to formal vocational education and training, policy makers have been grappling with how to revamp the skill development system. Recently, in India there has been a renewed focus on skills development, with a target to develop the skills of 500 million people by 2022. To this end, in 2009 the government espoused a National Policy on Skill Development with the aim to enhance the skills and knowledge of the people in order to increase their employability and competitiveness in the global world (NPSD, 2009).

It is estimated that the trend of falling dependency ratio and increasing population of 20-35 years which is relatively younger faction would place India the youngest nation and will continue to give India a relative advantage over other countries for another 25–30 years. It is also estimated that in 2020, the average Indian would be only 29 years old which is quite less as compared to 37 years in its neighbour China and also other countries of the West like the United States, West Europe and Japan where it would be 37, 45 and 48 years, respectively (GOI, 2010). Moreover, this ageing phenomenon is anticipated to globally create a dearth of skilled human resource by about 47 million and India would have a surplus of skilled human resource numbering to 56 million by 2020 according to the Boston Consulting Group study (NPSD, 2009).

Strengthening education and skills is an important policy force for inclusive and sustainable growth. Education and training policies and systems, more and more face the challenge of continuously adapting to the demands of competitive markets along with the individual learning needs. However, governments are considering policy options to build up a skilled human resource base to increase the employability of the workforce and to serve the growth sectors of the economy. Within the realm of TVET there is an overarching concern of the “skills mismatch” which tends to pose certain questions as, what are the skill gaps? At what level

do they occur? Which skills are required by the employers? Which skills are imparted by the institutions? How do the training systems support the acquisition of skills and its upgrading? How does the education system interface with the world of work to synchronise skills development with the changing demands?

Against this backdrop, securing relevance of skill development assumes the top policy priority and the efforts to this end should be kept persistent reflecting the dynamicity of the world of work. Hence, a sound information infrastructure to collect skills requirement on the demand side and to examine the performance of TVET graduates on the supply side should be considered as the initial rung for the incessant adaptation and development of TVET system. Particularly, from the policy perspective, more emphasis should be given to the development of information infrastructure focused on the education-to-work transition for preparing youth more efficiently for the world of work. Education-to-Work transition includes developing readiness for the world of work, facilitating the actual transition process and improving labour market outcomes. An Education-to-Work information base is a minimum requirement to initiate a proper Education-to-Work transition policy. In developing countries like India, the issue of Education-to-Work transition has not received much attention till recently despite the fact that transition to work appears at quite an early age. Initiatives towards this end may be promising in addressing this issue and would call for a paradigm shift in government priorities and policies. In order to ensure that TVET imparts relevant knowledge and skills to enhance the employability of the takers of TVET, there is need for a comprehensive base of information on education to work transition. Education-to-Work information base is a set of policies and practices for garnering information relating to skills and knowledge required by the employers and the labour market outcomes of those entering the world of work. It requires capturing accurate and timely information on the skills' demand as per the changing nature of the world of work, and also on how the skills' supply by TVET performs in the labour market. A sound information base provides deeper insight into the dynamics of education and work and help in informed policy decisions.

Utility of Education-to-Work Information Base

A sound Education-to-Work information base is beneficial for all the stakeholders, both at macro and micro level. At the macro

level, it provides information about the skills required by the employers in various sectors and levels of jobs. On the basis of this information, the government can look at the relevance of the skills imparted by the providers of education and training like the schools and the TVET institutions. Thus, the gaps in the skills demanded and the skills supplied would be identified so as to enable the governments to make interventions in terms of policy and programmes relevant to the labour market situation and enhance the employability of the TVET graduates. At the institutional level, by evaluating the performance of their graduates in the world of work, the information base may provide the direction in which the school or TVET institution may affect reforms. The institutions can also go in for a comparative analysis of other institutions and identify and target the hard spots in their institution in order to improve their courses in line with the requirements of the labour market. At the individual level, this information system would help the students to know about the available jobs, requirements of skills in various jobs, their monetary benefits, opportunities for career advancements and related issues. This information would help them in making the right decisions about the courses to be pursued and the kind of skills they need to develop to be successful in the job market. In a broader perspective, the mismatch between the supply and demand of skills can be rectified with the help of a strong information system which would help the policy-makers and planners make informed decisions and strategic interventions.

Trends in Education and Employment

In India, the education and employment trends during the last decade give a positive picture about education which shows that over the years, there has been a considerable progress in the educational achievement as a whole. This is evident from the rising proportion of 15 years and above aged population attaining secondary education and above to 30 per cent in 2009-10 from approximately 21 per cent in 1999-2000 (GOI, 2011). There is an escalation of almost 10 percentage points in educational achievement during the decade. Whereas the employment trend shows that specifically among the educated youth (15-29 years with level of education of secondary and above), irrespective of the rural or urban area, the unemployment rate was high with marked gender difference of about 10 percentage points and sharp decline of employment among females. The unemployment rates

for the usual status among educated youth are found to be quite high in urban areas as compared to the rural areas and it is more prominent amongst females which are 18 per cent in rural areas and 23 per cent in urban areas, whereas in the case of males it is 8 per cent in rural areas and 10 per cent in urban areas. On the other hand, there is no gender difference to be found with respect to the underemployed population aged 15 years and above in the urban areas. However, more proportions of males (11 per cent) are available for additional work than females (8 per cent) in the rural areas (NSS, 2009-10). Further, the status of employment in the urban areas by general education level, of the persons in the age group of 15 years and above indicates that highest proportions (18.5 per cent) of persons with secondary education were self-employed. In the case of regular employment, persons with level of education graduation and above marked the highest proportion (24.4 per cent) followed by those who were having education till secondary level (19 per cent). It was observed that incidence of casual employment decreased with increasing level of education and was found to be more prominent among illiterates and persons with education below secondary level (NSS, 2009-10). This undoubtedly signifies the relevance of education for steady employment opportunities.

Education-to-Work Transition

The transformation in the Indian economy due to liberalisation calls for educated human resource adequately equipped with skills not only to compete with the global standards but also to keep pace with the growing blend of latest and sophisticated technology at the domestic level. While potential for education may be realised by expanding education, nevertheless, it becomes imperative to tackle the problems related to skills mismatch in terms of supply and demand for enhancing employability and effective management of human resources. This clearly underlines the importance of understanding relationship between education and labour market. Such understanding requires a careful analysis of information related to transition from education to work, indicators of which draw both from education and labour market and the integration of the two is very demanding in terms of data requirements for policy predictions. There are three salient features which underline an effective education-to-work transition information base. First of all, in order to anticipate the demand and supply of future skills, an information base must draw upon comprehensive labour

market information including data on the current employment market, job vacancies and recruitment needs along with information about training and career progression. Secondly, from the supply side, an information base must draw upon a reliable system for tracing youth from completion of education to entry into the labour market. Thirdly, since statistical surveys may not capture complete information on skills required, it is crucial that close cooperation between industry and the education sector be established. This would make it possible to gather comprehensive information through formal and informal communication between local employers and TVET providers.

Policies and Practices

In India, the collection and utilisation of data is governed by certain legislations and regulations like Collection of Statistics Act (1953), Collection of Statistics (Central) Rules (1959), National Policy on Dissemination of Statistical data (1999), Collection of Statistics Act (2008), Collection of Statistics Act (2011) and the recent regulation covering, specifically, skill gap surveys and labour market information systems in the National Policy on Skill Development (2009).

The surveys conducted by National Sample Survey Organisation (NSSO) cover all employment sectors across the nation, barring a few inaccessible areas of Nagaland and the Ladakh and Kargil districts of Jammu and Kashmir. The NSSO survey included questions relating to possession of skills in 1993-94, 1999-2000 and 2004-05. Though the scope of each survey is different, but taken together, these provide some idea on the skill profile of the sample under study. Incidentally, the 2004 round of NSS had a module on vocational training which could be used for undertaking more in-depth analysis on vocational training. The National Skills Development Corporation has conducted national sector-wise skill gap studies and also state- wide studies. While the state surveys cover all sectors of the economy, the national surveys cover 20 high growth sectors as well as the informal sector. There are some other sector-specific and state-specific studies, conducted by a few organisations, which identify employment potential and skill identification.

At the federal level, the Central Statistical Organisation (CSO), functioning within the Ministry of Statistics and Programme Implementation (MOSPI), is the apex statistical body in the

country. While the CSO works for planned improvement of the overall statistical system in the country, each of the Ministries, at the federal level, have a statistical unit, independently collecting, collating and disseminating statistical data. Nationwide sample surveys on socio-economic indicators are carried out by the federal government on a regular basis whereas at the sub-national level, a Directorate of Economics and Statistics (DES) exists in all States and Union Territories, heading their respective statistical systems and collecting data as and when required. There are other agencies also which carry out skill gap analysis at the national and state level. Way back in 1988, as a result of the National Policy on Education (1986), the centrally sponsored scheme on vocationalisation of secondary education envisaged the conduct of district vocational surveys for realistic estimates of Human Resource needs on a long-term and continuing basis, but not much has been done towards this end.

Though the employment and unemployment surveys are conducted by NSSO quinquennially, the time gap of five years do not allow capturing the rapid changes in the labour market. Moreover, the results are published 18-24 months after the end of each survey round. Now, NSDC plans to carry out surveys at three year intervals. Most of the other surveys are conducted on ad hoc basis. There are other alternative sources that provide quantitative data like the publications and the Employment Market Information Programme of the Directorate General of Employment and Training. There is legislation mandating the registration of vacancies with the Employment Exchange under the Employment Exchanges (Compulsory Notification of Vacancies) Act 1959. The data for Employment Market Information Programme is collected once in two years but is restricted to the organised sector. The funding of the skills' need surveys is done by the national government and private stakeholders. However, it varies according to the sector and type of survey. Over the last five years, the funds allocated for skill gap surveys have been increasing.

With regard to the occupational disaggregation, India has adopted the National Classification of Occupations (NCO-2004) which is in line with the approach adopted by ILO in its International Standard Classification of Occupations (ISCO). Similarly, for industrial disaggregation, the National Industrial Classification (NIC-2008), which is identical to the structure of International Standard Classification of Industries (ISCI), has been adopted to provide a basis for the standardised collection, analysis

and dissemination of industry-wise economic data. Though they may give a broad idea of the skills demanded, they do not map the rapidly changing specific skill demands by occupation or industry.

While the National-level data could be used for policy development, there is need for more disaggregated data at the provincial level in a uniform manner that could greatly aid policy formulation. Though the five-year plan exercise was a continuous process, these were, in the aggregate, sufficient for broad policy directions but perhaps not appropriate for focused area level interventions. The federal nature of the country also poses challenges of coordination across different state governments.

Challenges: Assessing Skills Demand

To be able to make the authentic use of the information about demand for skills for the purpose of policy and planning, it requires adequate skill and effort in gathering data from diverse sources, analysing and interpreting it to give it a meaningful and comprehensive shape. There is no single indicator that can capture the transition from education to work entirely. In India, although the major source of data for tracking of skills is the National Sample Survey; however, there are some other agencies/organisations who conduct research on specialised labour market data. The major challenge faced relates to using the existing data in an integrated manner to predict Education-to-Work transition. The use of broadly defined classification of industries, occupations and province provide a wider perspective of the labour demand dynamics but does not give scope for detecting the explicit changes that take place in the requirement of skills as per the specific industry, occupation and province. The employment and unemployment survey is conducted every five years, but due to this huge time gap between surveys, the fast changing scenario of the labour market is overlooked by the stakeholders. The main results are published in about a period of two years after completion of each survey. It can only provide a trend at a broad level rather than specific and updated information that can give the required feedback to policy-making or policy implementation. One major limitation of the surveys under National Sample Survey Organisation (NSSO) is that due to the constraint of sample size mainly dictated by limited Human Resource, it is not possible to arrive at reliable estimates at lower level of disaggregation. There is need for more disaggregated data at the provincial level in a uniform manner that could aid

policy formulation. Moreover, the NSS rounds do not permit for an obvious division between vocational and general education. Due to this limitation, it is not easy to conduct in-depth study of vocational education and training solely on the NSS source. Moreover, a surfeit of organisations is involved in data generation which is largely decentralised. The lack of uniformity in the use of definitions and concepts is a serious problem, which often makes it difficult to compare results of different surveys. In addition to this, in case of ad-hoc surveys, the definition of the term skills and the methods used to identify it, differ with each survey creating difficulty in comparison. Besides, there is no particular legislation and regulation effective to support the compilation and generation of data on skills requirement and its use by the public.

In case of executing employer surveys, small size of employers and informal functioning without any proper registration poses a significant challenge, as it is difficult to identify the exact population of employers. Moreover, the exercise of carrying out surveys for the unorganised sector faces issues of methodology and logistics. It is very difficult to survey the highly fragmented clusters which do not have any industry association. Nevertheless, the significance of Labour Market Information System (LMIS) has been extensively acknowledged at various forums. There is need for collection of such data through employer surveys which could provide more comprehensive information. Thus, limited coverage of the employment market information, inability to use the existing data in an integrated manner, periodicity, delay, lack of reliable estimates at lower level of disaggregation, are some of the issues that need to be addressed. Nonetheless, the National Policy on Skill Development (NPSD, 2009), places lot of emphasis on developing labour market information system and planning of human resource for the consistent and genuine measurement of the trends in the economy and the dynamic forces of the labour market. Hence, for developing an effective LMIS and Human Resource Planning (HRP) needs to take into cognizance the challenges highlighted above.

Assessing Labour Market Phenomenon

Incidentally, in order to track labour market performance, surveys/ studies are undertaken on ad-hoc basis with only a few sectors being covered. There is no nationalised system of keeping records of employment of vocational pass outs, though, some schools and institutes maintain such records. However, the recent policy

on skill development identifies labour market performance as a key thrust area proposing programmes to develop and upgrade the skills of the workers and make them competent to tune with the shifting requirements of the labour market and the altering technologies. It also emphasises on modular courses/short term relevant courses to facilitate the placement of individuals into the workplace. It has given importance to enhancing the employability of the workforce. Moreover, to reduce the mismatch of skills, it focuses on skill development system that would be based on the demand for skills and channelled by the pointers of labour market (NPSD, 2009).

Lack of commitment and motivation to conduct studies and collect such data along with no legislation for collecting such information results in scarcity of data investigating the earnings and employment outcomes of those who have undergone the TVET programmes. This hinders making effective policy decisions about the programmes of vocational education and training.

Seeking Employer Involvement

In India, involvement of employers has been quite weak during the past. The involvement of the employers in the process of decision making in TVET is quite challenging due to ineffective legislation and inadequate knowledge among the stakeholders who participate in the council or board meetings. In addition to this, another drawback is perceived on the part of the private sector for its reluctance and lack of fervor to engage more intensely in policy dialogue concerning TVET. Many firms do not see direct benefit hence they lose interest in participating for the improvement of TVET. But now the Apprentices Act 1961 is proposed to be amended to facilitate mutual cooperation and understanding between employer and employee on the one hand and between education and employer on the other hand. Since the last decade, when manufacturing sector faced the crisis of skills deficit, due to the mismatch between the supply and demand of skills, Ministry of Labour and Employment took the initiative of holding discussions with the affected parties. Consequent encouraging outcomes provide evidence of the advantages it gives to all the stakeholders, by adopting a more participatory approach involving industry while making decisions for TVET. Establishment of National Skill Development Corporation and Sector Skills Council is also a positive step towards employer involvement. Further, if

we wish to encourage the active participation of the employers at par with other countries, we need to motivate the employers for continuous participation and engagement by means of introducing some incentives may be in the form of monetary benefits, as is the case with other countries; otherwise their participation may not be sustained for long.

Current Challenges in Skill Gap Studies

The National Skills Development Corporation (NSDC) is building a research base in the skills domain and has commissioned District-level and Sector-level Skill Gap studies. District-level skill gap studies for all states except Bihar have been completed. Updates to studies for the 24 high growth sectors have been commissioned and are expected to be completed by 2014. Some challenges related to skill gap studies were highlighted on discussions with NSDC. There are a few challenges related to data, with data on unorganised sector employment and productivity not available. Further, district-level employment data for industry, being used by the states, is outdated and only covers organised sector. NSSO has state-level break-up by economic sectors which, again, may not be adequate for district-level estimations. On the supply side, there are hardly any studies or estimates on the pass-out/ completion and drop-out rates from both vocational (ITI, VTP, Diploma etc.). This makes it difficult to estimate the number of people who are dropping out and who may directly benefit from the skill trainings. The industry classification, being used by NSDC and the Planning Commission and the industry classification available with General Manager-District Industries Centre (GM-DICs) in the districts are different. Since, even if we go by Industry association database, which might have sectors listed that can be re-classified into NSDC classification, its data is mostly not exhaustive with many non-member Small and Medium Enterprises (SME) industries missed out. Further, re-classifying GM-DIC data, which, as such, is exhaustive, into NSDC sector classification is extremely difficult. Thus, in a bottom up industrial skill requirement estimation model, it becomes a constraint. District-wise training capacity data of unorganised training providers is difficult to estimate and is, therefore, not currently factored in while estimating the skill gaps. The scope of the skill gap studies needs to be discussed and agreed upon with key state-level stakeholders, such as the skill development missions, prior to finalising it. In Chhattisgarh, the

requirement of the state skill development mission varied from the scope of the regular studies and was accommodated by NSDC as an additional scope. Such kind of variations at state-level (for example, in Kerala also, there was a need to have additional chapter on skill requirements for emigrants) can then be accommodated in the study design itself. Moreover, the definition of semi-skilled and skilled varies between states. The key issues are of college drop-outs and those who completed 10th or 12th being classified as semi-skilled (these represented large numbers who had practically no skills) with additionally, basic graduates with poor employability, being classified as skilled, which is challenged by many people.

There is need for estimating the skill requirement on scientific and realistic bases with specific definition of skills as also argued in a paper of Institute of Applied Manpower Research (IAMR) which mentions that the estimate 500 million people to be trained by 2022 is made without any specific definition of skills (Mehrotra et al., 2013).

Learning from International Experiences

The irregularity and periodicity of the labour force surveys poses a barrier in providing complete and updated information about Education-to-Work transition. On the other hand, several countries such as Philippines, Indonesia, Kazakhstan and Mongolia conduct quarterly labour force surveys which help in updating the labour market information. Incidentally, Philippines also has a unique procedure to ensure reliability and acceptability of survey results among the statistics agencies and relevant users through an Inter-Agency Committee (IAC) on Labour, Income and Productivity Statistics, created by the National Statistical Coordination Board (NSCB). This kind of an external, inter-agency committee on statistics could be a promising model for other countries. Most of the labour force surveys do not provide complete information on education and training. In order to have comprehensive information for analysis of Education- to-Work transition, youth cohort surveys are more desirable. There are instances of this kind of comprehensive and longitudinal information available from a number of youth cohort or follow-up surveys in Scotland, Ireland, Norway, England and Wales. Similarly, the Bureau of Labour and Employment Statistics in the Philippines conducts nationwide employer Integrated survey on specific skill needs once in two years.

In addition to this, the Technical Education and Skills Development Authority (TESDA) graduate tracer studies are a good example of representation of disaggregated data by region, mode of delivery, gender, occupation and educational attainment. Other well-known graduate tracer studies include those of Malaysia, Canada and Australia. Malaysia, on its part, conducts an online higher learning institution tracer study for assessing the rate of employability and the effectiveness of the academic courses. The participation in this survey is mandatory for graduates. On the other hand, Job Openings and Labour Turnover Survey (JOLTS) in USA compile information on vacancies and labour mobility.

The National Employer Skills Survey (NESS) in UK has a distinctive feature of targeting skills deficit and gaps and unravelling vacancies emerging from skills' and non-skills' issues. On the demand side, in-depth qualitative information about employers' needs can be adequately gathered through an institutionalised system of employer involvement like that of UK Sector Skills Council and the Industry Skills Council of Australia. Besides this, information on the recruitment of new graduates and the skill needs of the companies are also garnered on individual basis in countries like Japan through informal engagements between companies and educational institutions (UNESCO, 2012).

General Recommendations

With the development of National Policy on Skill Development and the assimilation of the National Vocational Education Qualifications Framework (NVEQF) and National Vocational Qualification Framework (NVQF) in the National Skills Qualification Framework (NSQF), which includes both technical and vocational education and training, there is a need for developing a comprehensive Policy on Technical and Vocational Education and Training. In this regard, a sound skills information base is imperative, and it should have an all-inclusive picture of education–labour market linkages in terms of analysis of both supply and demand of skills. The educational policies must consider both the quality and efficiency of the supply of education and labour and non-labour policies affecting the demand for education. Hence, such a comprehensive framework will not only strengthen the diagnostic capacity of education supply and demand analysis, it will also simultaneously restructure the policy approach to education issues. TVET policy does not exist in isolation and, therefore, the TVET information

base needs to be linked with other policies like the economic policy and the education policy.

There is need to secure the political will and commitment from all the stakeholders. Besides this, there are various organisations working for skill development, there is a need to have a common line of thought among them as also for a coordinated effort in order to avoid any duplication of efforts and wastage of resources.

Research and capacity building need to be strengthened. For this, suitable programmes may be organised to train the researchers at all levels–national, state and institution–on the methodology of collecting, analysing and interpreting the data.

Much more still needs to be done to improve the quality and coverage of Labour Market Information presently being collected by various agencies in India. More disaggregated data on specific target groups such as women, youth, migrant workers and disabled people is usually obtained by undertaking special studies to gather, analyse and interpret both the quantitative and qualitative data.

Information on occupations that are disappearing or emerging as a result of technological changes and structural changes in an economy can be gathered as part of broader based establishment surveys or special studies designed to obtain this specific type of information. Information on the demand for workers in specific occupations and the changing content of these occupations has to be developed using data from several sources.

Specific Recommendations

- So far information gathering and policy specifically for education to work transition are not in place in India. There is a need to specifically develop a set of policies and practices that collect and provide information related to the skills need of employers and the labour market situation of school leavers. There is need of a policy specifically for skill needs data collection, dissemination and research. The National Policy on Skill Development addresses larger issues and not specifically data collection issues.
- While developing information base for education to work transition, analogous to the development of statistical surveys, there is need to go beyond to establish close communication channels between education and employers to share information about skills supply and demand.

- Serious inclination towards quantitative parameters has made the existing labour market information system quite redundant in the present context. The widening gap between quantitative and qualitative information has led to serious problems. There is need to reconcile these diverse aspects. Both supply and demand dimensions of quantitative data are significant for development of outcome oriented TVET policy. However, quantitative data may not suffice for actual information for skills demand which may provide a reference point for developing TVET programmes, curriculum, delivery etc. In this regard, we need to devise means to capture the qualitative information also including employer's opinion about the relevance and validity of education in the context of future requirements.
- To capture the dynamicity of the labour market and monitor interim fluctuations the labour force surveys should be conducted more frequently. Along with the frequency, the regularity of these surveys needs to be ensured to collect comprehensive data about employer demands and labour turnover. Since India has a huge informal sector, the gap in the information would always be there if we do not cover this sector, therefore we have to undertake employer surveys for this sector also. The information could also be captured by means of household surveys.
- It is essential to carry out tracer studies at micro and macro level, to know the competence of the pass outs of TVET programme in the workplace. At the micro (institution) level, capacity building of the surveyors needs to be conducted and the methods and survey period /interval need to be monitored to ensure the reliability and validity of the data and its utilisation. On the other hand, the macro level (system level) survey should focus more on gathering information related to the process of transition to work, including pace of gaining employment, role of education in gaining employment and consistency in work. Household surveys focusing on youth and covering information related to educational background and labour market situation may also be helpful.
- A constant engagement between education and employer is imperative to capture the qualitative information. Careful intervention and mediation is required on the part of the government to strengthen the role of employers. The continued participation from the employers may be encouraged by adopting delivery oriented approach.

- Legislation need to be introduced to ensure uniformity and regularity of the surveys throughout the country at fixed intervals.
- Meticulous policy research is required for elaborating feasible and tangible methods of developing a robust information base and to link it with other policy issues. Such policy research would also help in identifying gaps and further improvement of the information base.

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