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Matthias Pilz *Editor*

India: Preparation for the World of Work

Education System and School to Work Transition

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Matthias Pilz (Ed.)

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Foreword: Reflections on Opportunities and Challenges of Skills Development in India

Shyamal Majumdar

1 Introduction

India, with a population of 1.2 billion and a workforce of more than 500 million, has maintained a stable Gross Domestic Product (GDP) growth rate until 2008 when the global financial crisis hit many countries worldwide. The economy has shown signs of accelerated GDP growth up to 7.5% in the last quarter of 2015, a striking development for one of the world's fastest growing large economy, according to the Financial Express (2015). This impressive growth of the economy has fuelled a surge in the demand for skilled workers in India in spite of severe skills shortages in the organised and unorganised sectors.

The National Skill Development Corporation (NSDC) of India has recently commissioned a study undertaken by the KPMG on skills gaps in 24 emerging sectors of Indian economy[1]. Findings of the study suggest the incremental human resource requirement across these 24 sectors, which is nearly 109.73 million whereby the top ten sectors account for about 80% of requirements (Government of India 2015).

The objective of the study is to understand the sectorial and geographical spread of skill requirements that exist. The estimates are based on an extensive stakeholder engagement including small, medium and large enterprises in every sector, as well as Sector Skill Councils (SSCs), training providers in the skills space and academia. The studies provide granular data on the skill gaps for two time periods – 2013-17 and 2017-22. The reports highlighted massive industry requirements estimated at close to 109 million skilled workforces over the next decade (Government of India 2015).

Persisting skills gaps in the Indian labour market have been a serious concern for both policy makers and industrialists in India in the recent past. Various other studies have highlighted skills gaps in different sectors in India (Mehrotra 2012; Chenoy 2012; Jamal and Mandal 2013). It has become apparent that over 2% of the Indian workforce (aggregated data) has skills training in formal vocational education. Only 2.4% has received informal vocational training (Mehrotra

1 NSDC Reports per State and Sector can be found here: http://www.nsdcindia.org/nsdcreports

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2012). The graduates who have received vocational education also lack the skills required in the labour market. Thus, graduate employability continues to be a setback. There is limited formal link between general education and vocational training in the country. In addition, the labour market in India is undergoing a dynamic change. With this as a backdrop, the NSDC in 2009 estimated that over the next 15 years, 365 million people are expected to be eligible to join the workforce and about 11–13 million people are expected to look for employment opportunities each year (Government of India 2009).

2 Opportunities and Challenges

India's growth story is faced with opportunities and challenges. India is set to become one of the youngest nations in the world by 2020, a looming opportunity for India. The average working Indian will only be 29 years by 2020 as against 37 in China and more than 45 in the developed countries. India stands to gain from the huge number of its young people (Government of India 2011).

While the future demographic dividend will present opportunities, challenges are posed by persistent skills gaps both in quantity and quality. Graduates who receive vocational education largely lack in practical skills required in the world of work. They are also on the frontline of the job unemployment and decent work that continue to challenge the sector.

2.1 Addressing the Challenges

Two major things need to be looked into if Technical and Vocational Education and Training (TVET) was to be seen a solution. It is important to understand what type of vocational education and training is needed and how such VET provision support the immediate demands of the economy. This calls for a radical restructuring of TVET in India appropriately tapping for TVET's transformative role in supporting economic, social and environmental dimensions of development. TVET needs to be re-organised differently in ways that create opportunities for the big margin of population trapped in the informal and unorganised sectors and target quality knowledge and skills outcomes for those already in the formal TVET systems. A multi-stakeholder partnership involving the public and the private sectors, the community and other stakeholders is needed to develop a comprehensive TVET Act to back these goals and open pathways for implementation. The practical component of vocational education and training is largely limited in India

particularly at Secondary education level. It was not largely supported by company-based or workplace-based training. Restructuring TVET means embedding compulsory practical component built in TVET provisions in which industry associations, sector councils and companies could have an active role to play.

Identifying emerging skills and qualifications requirements in the world of work and ensuring that education and training meet these qualifications needs will address relevance and make the time spent in schools and training venues more meaningful and purposive for many young people. In terms of quality, updating curricular content to reflect industry-required skills, modernising training delivery to attract more youth to take TVET courses and innovating school-to-work transition to ensure employability skill are among the things that could render TVET to cater to economic demands. Indeed, TVET is high on the agenda of many countries and its further development is attributed to its high potential to produce skilled and technical workforce to support socio-economic opportunities.

Private sector engagement is critical in successfully facilitating school-to-work transition. This is proven in countries that have historically integrated the participation of the private sector and other social partners in implementing TVET like in Germany, for example, in delivering its dual training system/dual study system/apprenticeship model. Looking at Germany's economic development path, the last 40 years saw how the German industrial sector advanced from a production-based economy to a knowledge-based economy driven by technology and innovations. Combining theory with practice-based training in workplace settings, as well as applied research have gone a long way in taking TVET far from the traditional concept of manual labour, albeit challenges in the overall image is inevitable in Germany.

A large part of the industrial employment problem, however, emanates from the mismatch between the skill requirements of employers and the skill base of job seekers. Presently, about three million graduates and post-graduates are churned out from the countries' colleges and universities. But a majority of them lack the skills necessary for acquiring jobs in the growing sectors of the economy. The expansion of education, particularly higher education, has produced numerous graduates and post-graduates, but shortages of middle-level technicians and those who possess supervisory skills persist. This mismatch between demand and supply of skills in the labour market and the perceived shortage and poor quality of trained persons is likely to become an impediment in the path to sustained economic growth in the absence of timely corrective measures.

India will add one million new entrants to the labour market force every year. One of the biggest challenges for India is to unlock the latent potential of the millions of the young entering the workforce through skill training and skill fore

casting. This needs to correspond with promoting the demand for greater productivity of the existing workforce and future needs of the country.

3 Inclusiveness

The task of workforce development in India has been faced with changing realities of globalisation on the one hand, and the need for inclusive growth on the other hand (Majumdar 2008). The low literacy rate and a lack of skill training for a vast majority of the Indian populace pose a major hurdle to move forward into a knowledge economy. Therefore, policies to ensure higher quality education and the expansion of vocational education and skill training for the poor and underprivileged are needed in order to produce a new generation of educated and skilled workforce who are flexible, analytical, and can serve as driving forces for innovation and growth.

The current growth in various sectors, being mainly urban centred, has also failed to incorporate the vast majority of the rural poor and other backward sections of the society. With nearly 70% of the population living in rural areas, India remains a predominantly agricultural society. Though the agricultural sector has seen considerable growth in the five decades since independence, with substantial increases in agricultural production, the general livelihood of the rural population remains low. A lack of education in general, and employable skills in particular, leaves very few options for these people to do anything other than rely on raw labour for their livelihoods resulting in low earnings and subsequent poverty. Therefore TVET development at community level will address the inclusiveness of growth, promote TVET relevance with the immediate economic and social needs of communities and create job and entrepreneurial opportunities.

4 Skills Agenda as a National Priority

This book will be published on the timely occasion of upholding skills development high on the agenda and pursuing sustainable growth and developing India within this framework. The launching of a new Ministry of Skill Development and Entrepreneurship is a welcome development towards this end. The new Ministry is responsible for the co-ordination of all skill development efforts across the country, minimizing the gap between demand and supply of skilled manpower, building the vocational and technical training framework, skill up-gradation, building of new skills, and innovative thinking not only for existing jobs but also jobs that are to be created. The Ministry aims to improve skill development on a large scale with an emphasis on speed and high standards in order to achieve its vision of a 'Skilled India'. The pursuit of these mandates is aided by its functional arms – National Skill Development Agency (NSDA), NSDC, National Skill Development Fund (NSDF) and 33 SSCs as well as 187 training partners registered with NSDC. The Ministry also intends to work with the existing network of skill development centres, universities and other alliances in the field. Further, collaborations with relevant Central Ministries, State governments, international organisations, industry and Non-governmental Organisations (NGOs) have been initiated for multi-level engagement and more impactful implementation of skill development efforts.

India is utilising different strategic approaches to skills development:

i. strengthening TVET systems;
ii. engaging the private sector in TVET actively;
iii. aligning skills policy with national agenda of inclusive growth and
iv. integrating skills for sustainable development and green growth.

In this regard, India has come up with three macro-level initiatives to accelerate skills development. Public-Private Partnership model has been evidenced through the creation of NSDC, an initiative with a 51-49 equity ratio between the private sector and the government. The formation of Sector Councils and the adoption of schools by the private sector have also demonstrated the non-negotiable role of the private sector in skill development. These efforts need to be sustained and cultivated to develop more innovative partnerships that engage industries and the private sector in partaking in delivering education and training since the sector stands to benefit from this on a longer term. The participation of the private sector in quality assurance and regulatory mechanisms will raise greater confidence in skills outcomes and qualifications. These developmental interventions and more are needed to expand and scale up the outcomes of TVET. Scaling up the existing

TVET provisions is not enough without pursuing TVET transformations underpinning life-long learning, sustainable development and greening, innovation, multi stake holder partnership and inclusiveness. In pursuit of this goal a number of key challenges need to be overcome including image of TVET, horizontal and vertical mobility, private and community engagement, updated curricula and quality, TVET teacher training, skill mismatch, recognition of non-formal, informal and prior learning and qualification framework.

5 Skills Agenda as Global Priority

Importantly, the publication of this book is also timely as it coincides with the efforts of many countries in articulating the importance of skills development and sustainable development in the Post-2015 education agenda. The central focus of UNESCO in making education and training relevant for the Post-2015 discourse is to ensure inclusive, equitable and quality education and to promote lifelong learning opportunities for all. The agenda is transformative, universal and inspired by a humanistic vision of education based on human rights and ethnic diversity. The agenda commits to promote quality lifelong opportunities for all in all settings and at all levels. This includes equitable and increased access to quality TVET for work and life and literacy for both youth and adult including gender equality becomes top priority. To do this, countries have committed, through the Incheon Declaration at the World Education Forum, to increase public investments in education according to country context and better align priorities with regional and international benchmarks. The multi-stakeholder-driven declaration is solidly backed by UNESCO, together with UNDP, UNFPA, the World Bank, UNICEF, UNCHR and UN Women, each representing educational mandates and initiatives through which Member States will be supported at country-level implementation and arrangements.

In alignment to these are similar efforts of global and regional players such as the ILO, OECD, ASEAN, SAARC and ADB. Educational transformations are underpinned in the fourth Sustainable Development Goals (SDGs). The ILO actively seeks to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all, which stands as an important leverage to take forward the decent work agenda as part of the SDGs.

Within the framework of developments taking place in India, there is much confidence that India with its potential to strongly pursue its long-term skills development goal within its national agenda is aligning itself with the global discourse and as such is moving ahead as an important global partner and player in making policies work.

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Introduction: Why India's Focus on Preparation for the World of Work is Highly Relevant

Matthias Pilz

Labour and employment have a central significance in the social discourse of many countries (cf. e.g. OECD 2000). There, not only questions of structure and organisation of work are analysed, but besides income also aspects of personal satisfaction and social recognition play an important role among others (Rifkin 1995).

In this book, a special focus should be taken up: It deals uniquely with the preparation of youths and young adults for the 'world of work'. Here, this so-called construct 'world of work' should be understood comprehensively. It deals with the aspect of 'school to work transition' in the broadest sense (Raffe 2008; Stern and Wagner 1999; Ryan 2001; Müller and Shavit 1998). Besides realised income, aspects of socialisation, personal development, social participation and classification, the specific occupation, and the personal perception regarding satisfaction etc. need to be examined (Heinz 1999). In addition to the personal and societal side of 'school to work' transitions, attention needs to be paid to the structural and institutional conditions necessary for managing transitions between educational stages and different types of vocational education and training (Ecclestone and Kumpulainen 2012). Besides all forms of initial (technical) vocational education (Goel 2008), pre-vocational education (OECD 2002: 372) as well as the field of academic education, which prepares for the working life, consequently belongs like further education to this book's focus.

The aspect 'preparation' stated in the title should be understood in terms of the classic claim in educational science to enable the next generation through the transfer of knowledge and skills as well as experience to cope with the requirements of the world of work.

The answer to the question, why the discussion about the 'Preparation for the World of Work' is especially in India of enormous importance, is one side of the coin. The other side arises from the international context. Here, it needs to be asked why particularly India is a crucial country to be analysed regarding the topic.

Both perspectives are of multidimensional nature because some aspects or rather challenges are of exogenous origin, thus are located outside the education system and others relate to the education system itself. Without trying to realise a

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completed discussion at this point, there are at least the following essential points to state:

- India is a huge country and its area is the seventh largest worldwide. With a population of more than one billion inhabitants and a number of persons employed of over 500 million people, it even ranks second. Despite the global economic crisis of the last years, the country reached an economic growth by an average of 8.5% p.a. in recent years and belongs to the fastest growing national economies worldwide (UNESCO 2011). Consequently, from an international perspective it is crucial, to deal in-depth with the developments in the context of the education and employment system in this globally important country.
- Furthermore, the country has a very young population. In 2021, about 66% of the population will be between 15 and 59 years old and thus at an employable age (World Bank 2013). With this, India has averagely one of the youngest populations worldwide. Due to high birth rates, this number will even increase over the next years. According to estimates, 70% of all Indians will be at an employable age by 2025. This can be an important advantage compared to other nations, but it assumes that the high number of young people actually also find employment. At the same time, it also confronts the country with huge challenges to qualify the potential workers appropriately in order to participate in the growth and to generate prosperity and satisfaction (Hajela 2012; Agrawal 2013). If the majority of this manpower will remain unused, this 'demographic dividend' could also change quickly into a 'demographic disadvantage' (Mehrotra 2014).
- At the same time, India faces a skill gap (Mehrotra 2014) because especially at the intermediate skill level (below academic track), and here in the blue collar sector, there is a huge demand due to the economic development on the Indian labour market. However, the available workers on the market only rarely have adequate qualifications for this part of the employment system. Thus, manifold mismatches emerge where, for example, on the one hand, the craft and manufacturing sector desperately looks for skilled workers and, on the other hand, young job starters cannot find adequate employment.
- From an international perspective as well as from an internal viewpoint, a dominant, special characteristic needs to be considered in India, too. India has a large informal sector that accounts for around 60% of the country's economic output and employs more than 90% of all workers (World Bank 2008; ILO 2002). This economic and labour market is very

large by international standards, and no one can ignore it in terms of training and labour market policy (ILO 2002; King 2012). In the informal sector of the Indian economy, 'skill acquisition' takes place in many cases through non-formal or informal learning (cf. underneath). The National Sample Survey of India (2006) reveals that among persons of age 15-19 only about 2% reported to have received formal vocational training and another 8% reported to have received non-formal vocational training. For the employees in the informal sector, there is no certification of acquired skills which limits the transparency and mobility.

- It is surprising that despite the important role of the topic, there is a relatively low number of research findings existing. Particularly empirical research findings on vocational education are mostly only available in a fragmented and shattered way or rather focused on single, partial aspects. Consequently, there is a research desideratum which should at least be approached by bringing together the existing findings through this book.
- One reason for the rudimentary and shattered state of research is that there is no comprehensive research community in the context of TVET research in India so far. Important research institutions like, for example, the European Centre for the Development of Vocational Education (CEDEFOP) in Europe are missing as well as bigger, research-oriented, academic training courses. The absence of a research community cannot be healed by bringing together distinguished Indian researchers from different sub-disciplines. However, it could be a step towards an interlinking and thus a formation of a research community in the future. It is also necessary to revisit some current research priorities in India, which tend to concentrate more on the traditional supply-demand orientation (Majumdar 2011) rather than on creating reliable data and information on the type and purposes of different kinds of vocational education vis-à-vis employment, social equality, innovation, and opportunities for further education and qualifications.
- Finally, it strikes that there is in fact a large number of introductions and overviews dealing with the Indian education system. However, they are in many cases of shorter and more rudimentary nature, they only exist as reports, or they only have a low scientific substance. In addition, there are various books and articles in scientific journals which solely deal with single parts of the Indian education system. According to our knowledge, there is no comprehensive standard work about the entire Indian spectrum of learning and the preparation for the world of work so far.

Therefore, this volume aims to provide a comprehensive access to the topic from an educational science and vocational pedagogics view. This should offer Indian and international readers an overview in a problem-oriented, detailed and up-to-date way.

In light of the above outlined realities, the crucial question arises, how Indian youths get prepared for the world of work, or as Majumdar (2008: 2) states:

> *"The challenge therefore facing the country is how to train and equip this young population with ways and means of gaining productive and meaningful employment".*

For the elaboration of the topic 'Preparation for the World of Work' it was important to acquire well-known and distinguished Indian scholars with a long-standing experience in the elaboration of individual partial aspects.

The intention during the planning of this volume was to approach the topic 'Preparation for the World of Work' problem-oriented and not to focus only on structures of the education system. Although these structures largely serve for the introduction and outline of the articles (from primary, secondary, and higher education level up to vocational education), they are not dominant in the articles themselves. The primacy of the approach was the critical analysis and interpretation of the problem definition or rather of the topic.

It is self-explanatory that through this approach a profound basis for descriptive-oriented structures and data was set, because for readers with less prior knowledge the analysis and interpretation have to be complemented with a respective, descriptive background and basic information. These descriptive aspects, however, are not lexically introduced in the articles but they are rather embedded in the respective problem context so that they serve as a thread for the necessary introduction of descriptive parts.

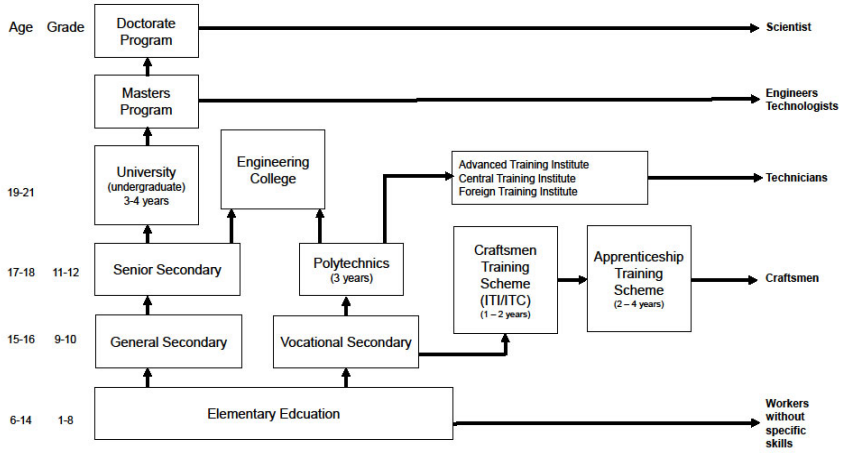

Figure 1: Indian Education System. Source: Own illustration (based on World Bank 2008)

For the reader who is less acquainted with the formal Indian education system, a first overview is provided at this point which is respectively focused and differentiated in the following chapters. Therefore, the subsequent overview deliberately includes solely the main paths through the system in order to offer basic information and to not block the view on the essentials.

As already explained, the form of the topics and the order of the articles are mainly oriented towards the structure of the educational institutions gone through by Indian children, then youths and finally young adults.

As already indicated above, there are, however, also other forms of learning which play a significant role. These were to be considered here in own paragraphs and chapters. For a definition, it was consequently reverted to a recognised construct by the UNESCO (2012: 9), which states:

> *"Formal learning takes place in education and training institutions, leading to recognised diplomas and qualifications. Non-formal learning takes place alongside the mainstream systems of education and training and does not typically lead to formalised certificates. Non-formal learning may be provided in the workplace and through the activities of civil society organisations and groups (such as in youth organisations, trades unions and political parties). It can also be provided through organisations or services that have been set up to complement formal systems (such as arts, music and sports classes or private tutoring to prepare for examinations). Informal learning is a natural accompaniment to everyday life. Unlike formal and non-formal learning, informal learning is not necessarily intentional*

> *learning, and so may well not be recognised even by individuals themselves as contributing to their knowledge and skills."*

All authors received key questions in advance (cf. figure 2) which – depending on the topical focus – were to be considered when elaborating the articles with different emphasis and intensity in order to achieve a certain structure and coherence of the articles in a very diverse topic area and also to provide the reader with a central theme as orientation. These key questions have been formulated relatively open to integrate as many facets as possible. Moreover, these questions were supposed to offer the authors a first access to their topic from which the detailed analysis and the interpretation should follow subsequently.

As regards content, the key questions were derived accordingly to the topic 'Preparation for the World of Work' from the international discourse, particularly from the areas occupational orientation, transition research, curriculum research, skills development as well as acceptance and labour market research.

- What are the main aims to prepare persons for the world of work (official government and other key players)?
- What kind of institution is offering programs (on your level of the education system)?
- How is the funding and other financial aspects (budget) organised?
- Is there a special curriculum (or part) to prepare for the world of work and what are the details (separated subjects or embedded structure, how many teaching hours per year)?
- Who is responsible for the design and implementation of the curriculum on national, regional, and institutional level?
- Which part of the curriculum is compulsory or elective?
- Please describe the related content and give proper examples in detail.
- Is there a gap between the prescribed /written and the enacted curriculum (what are the reasons)?
- What kind of teaching and learning environments and methods are suggested and are in use?
- What kind of teachers (education, practical experience, etc.) is involved and what is their formal qualification to become a teacher?
- What kind of certificate can the students get?
- What is the expectation of pupils /students to join the classes?
- What are the advantages to join the classes (smoother transition, lower unemployment rate, improvement of general VET knowledge in the workforce, etc.) from the macro-economic perspective?

In addition, the cultural aspects and the understanding of society are of great interest:

- What are the value / status / reputation of this kind of content in comparison to general education contents in society (and parents)?
- What do the employers (organisations) articulate about the content (important, realistic, up to date, acceptance of certificates)?
- Is there any national or regional political strategy or initiative to force the preparation for the world of work in your sector of the education system?
- What will be the future of the preparation for the world of work?

Figure 2: Key questions for the authors

The chapters intend to show the interaction and to offer further opportunities for information. The final chapter written by the two editors tries to provide an overview of the topic as a whole. Thereby, relations between the parts are disclosed and conclusions are drawn.

I would like to warmly thank all authors for their high level of commitment to elaborate the topics and research meticulously. Without this admirable motivation it would not have been possible to accomplish such a sophisticated and relevant analysis on the topic 'Preparation for the World of Work'.

Special thanks go out to Dr. Madhu Singh (UNESCO Institute for Lifelong Learning, Germany). She supported the book project strait up from the beginning. During very fruitful discussions she gave many important comments and also held to acquire experts out of the field in India to become authors.

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Primary and Upper Primary (1-8) Education: Initiative for the World of Work at the Primary and Upper Primary Education in India

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1 Preamble

It is well established that improvements in education are associated with long-term improvements in economic performance. There are three broad theories about how education influences economic performance according to David Earle (2010):

- The basic *human capital* approach is that education improves the overall skills and abilities of the workforce, leading to greater productivity and improved ability to use existing technology, and thus contributing to economic growth.
- The *innovation approach* links education to improving the capacity of the economy to develop of new ideas and technologies.
- An extension of this is the *knowledge transfer* approach, which sees education as a means of spreading the knowledge needed to apply new ideas and make use of new technologies.

However, there is an important question as to whether there is a causal link between education and economic performance, and if so, in what direction. It may be that the two are associated, but not causally linked. It also could be that better economic performance leads to an increase in educational participation and achievement. Or it could be that having more people with education leads to improved economic performance.

In general, education and economic performance are likely to be interlinked. Having a more educated workforce enables firms to take advantage of new economic opportunities, leading to improved performance. Also, economic growth can lead to greater national and personal wealth, which increases the resources available and opportunities for education.

Further, according to the author, economic analysis shows that on the whole, improvements in school-level education lead to improvements in economic performance, and more so than the other way around. Analyses using international

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cognitive tests have shown that it is improvements in cognitive skills, rather than years of schooling, which have a strong influence on economic growth. The amount of schooling undertaken is not related to growth, unless it also results in improved cognitive skills. Therefore, the quality of education is very important. This is very true for a country like India too. Given this truism, it is indeed highly important to note that India has recognised the importance of education, and more critically, the need for primary education for all its children in the relevant age group. We will now look at a snap shot of development of elementary education over the decades.

2 Development of Primary Education in India

Universal and compulsory education for all children in the age group of 6-14 was a cherished dream of the new Government of the Republic of India. This is evident from the fact that it is incorporated as a directive principle as enshrined in Article 45 of the Constitution of India. In the recent past, the government has made primary education a Fundamental Right of every Indian citizen. However, the allocation for education has remained around 4% of GDP although the government has wanted to raise it to at least 6%.

The number of primary and upper primary schools in India since 1950-51, indicate a steady positive growth. As can be seen from the table, the number of primary schools increased from a modest 0.21 million in 1950-51 to nearly 0.75 million in 2010-11.

Year	Primary	Upper Primary
1950-51	209,671	13,596
1960-61	330,399	49,663
1970-71	408,378	90,621
1980-81	494,503	118,555
1990-91	560,935	151,456
2000-01	638,738	206,269
2010-11	748,500	447,600

Table 1: Growth of Recognised Primary and Upper Primary Schools in India (1950-1951 to 2010-2011). Source: MHRD (2014)

The upper primary schools too grew significantly over the years from 13,596 in 1950-51 to a whopping 0.45 million in 2010-11 indicating the serious strides taken by the government in development of primary education. The above data has been graphically presented in the figure below.

As per the Progress of Elementary Education in India Flash Statistics 2011-12, the Gross Enrolment Ratio at primary level has hovered between 115.31

and 118.62 between 2008-09 and 2010-11. The corresponding figures for upper primary level ranges between 73.74 and 81.15. Similarly the Net Enrolment Ratio (NER) at primary education level ranged between 98.5 and 99.89 between 2008-09 and 2010-11, while the NER at upper primary level ranged between 56.22 and 61.82 during the corresponding years (Mehta 2011).

The dropout rates at the primary level indicate a decline over the years. As can be seen from the figure below, the dropout rate declined from 9.11% during 2009-10 to 5.62% in 2012-13. While this appears to be a redeeming feature, it must be mentioned that there are regional variations in dropout rates which are determined by rural-urban differences, remote regions, distinct geographical terrains including hilly areas, tribal populations and a host of other factors. For instance, in the state of Karnataka, the official statistics reveal that during 2010 there were 110,000 dropout children in the seven Educationally Backward Districts within the state despite intensive efforts made by the Department of Education to bring out of school children back to school Sarva Shiksha Abhiyan (SSA) (n.d.).

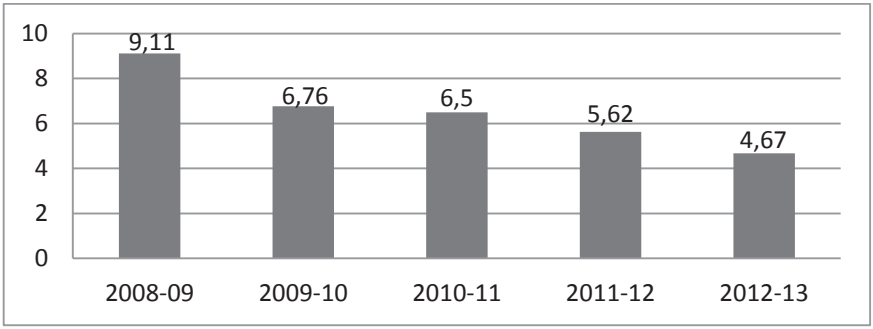

Figure 1: Average Dropout Rate at Primary Level. Source: NUEPA (2012) and NUEPA (2013)

In absolute terms, the Government of India has made huge financial investments in the education sector. In this regard, the government approved an outlay of Rs. 710 billion for its flagship elementary education programme, Sarva Shiksha Abhiyan (SSA) in the 11th Five Year Plan. Considering the increased requirements the implementation of the RTE Act would require, the government approved an outlay Rs. 231 billion for the combined RTE-SSA programme. This increased outlay was for a five-year period from 2010-11 to 2014-15, to be shared between the central government and the state governments on a 65:35 ratio. The Finance Ministry allotted Rs. 255.55 billion for the RTE-SSA programme for 2012-13 (MHRD 2011a). Despite such huge allocations, the share of education as percentage of GDP has remained very low.

It would be interesting to see a snapshot of the development of primary education in India. During pre-independent India, the scion of Indian politics, the revered Mahatma Gandhi had mooted the idea of providing all children with Basic Education, which holds a unique place in the history of elementary education in India. It was popularly known as Wardha Scheme, which would in essence, provide three R's in addition to teaching them a vocational skill, thereby inculcating dignity of labour among the children (KKHSOU 2011).

The scheme of basic education formulates the following proposals:

- Free, universal and compulsory education should be provided for all boys and girls between the ages of 7-14.
- This education should be imparted in the mother-tongue of the child.
- All education should centre round some basic craft chosen with due regard to the capacity of children and the needs of the locality. The committee suggested spinning and weaving, card-board and wood work, leather work, kitchen-gardening, agriculture and fishery as obviously suitable crafts.
- The selected craft should be both taught and practised so that the children are able to produce articles which can be used and may be sold to meet part of the expenditure on the school.
- This craft must not be taught mechanically but its social and scientific implications were to be studied side by side.
- In this craft-cantered education all the subjects to be taught were to be integrally related to the selected craft or the child's physical and social environment.

The concept of Basic Education as an educational theory and practice is unique and unquestionable. But its implementation is far from satisfactory. The Education Commission 1964-66, known as Kothari Commission fully recognised the importance of Basic Education and incorporated in its recommendations many of the fundamental features of basic education. Work experience, community living, social service, integration of academic knowledge with experience, Vocationalisation of Education, education for moral and spiritual values have been recommended by the Kothari Commission (NCERT 1970). The UNESCO Commission on Education in its report known as 'Learning to be' has adopted the term 'Basic Education' for primary education and emphasised that "education must cease being confined within school house walls, and many forms of social and economic activity must be used for educational purposes." (Faure et al. 1972)

National Policy on Education Committee of Members of Parliament was constituted by the Government of India in 1967 to consider some of the recommendations of the Kothari Commission. The relevant ones are reproduced below:

1. Work experience should be an integral part of general education at the school stage. Work with hands will help the young to develop insights into productive processes and use of science and inculcate in them respect for manual labour and habits of hard and responsible work.
2. There should be a broadly uniform educational structure in all parts of the country. The first step is to create the Ten Year School providing a common pattern of general education for all children. The national policy should be to ultimately make this period of ten years free and compulsory for all children.

The National Policy of 1968 marked a significant step in the history of education in post-Independence India. It aimed to promote national progress, a sense of common citizenship and culture, and to strengthen *national* integration. It laid stress on the need for a radical reconstruction of the education system, to improve its quality at all stages, and gave much greater attention to science and technology, the cultivation of moral values and a closer relation between education and the life of the people. This idea was taken forward by the 'Kothari Commission' (1964–66), which suggested introduction of 'work experience' in education. Subsequently, after the recommendations of 'Ishwarbhai Patel Committee' (July 1977), which first coined the term 'Socially Useful Productive Work' or SUPW, the subject was first introduced to the school curriculum in 1978, by Ministry of Education, Government of India (Naik 1997).

Perhaps the most notable development has been the acceptance of a common structure of education throughout the country and the introduction of the 10+2+3 system by most states. This system includes ten years of high school learning followed by two years of pre-university education and a further three years at degree level. In the school curricula, in addition to laying down a common scheme of studies for boys and girls, science and mathematics were incorporated as compulsory subjects and work experience assigned a place of importance.

Work experience, viewed as purposive and meaningful manual work, organised as an integral part of the learning process and resulting in either goods or services useful to the community, is considered as an essential component at all stages of education, to be provided through well-structured and graded programmes. It would comprise activities in accordance with the interests, abilities and needs of students, the level of skills and knowledge to be upgraded with the different stages of education. This experience would be helpful on their entry into

the workforce. Prevocational programme provided at the lower secondary stage was to also facilitate the choice of the vocational courses at the higher secondary stage (see chapter 3).

The evolution of elementary education system in India is interspersed with several new policy initiatives. A National Policy on Education addressing all levels of education took shape in 1986 and subsequently, the Programme of Action (POA) for the Policy was brought out in 1992. The National Policy on Education, 1986 and the POA 1992 envisaged free and compulsory education of satisfactory quality for all children below 14 years (MHRD 1986). There are mainly three streams in school education in India. Two of these are coordinated at the national level, of which one is under the Central Board of Secondary Education (CBSE) and was originally meant for children of central government employees who are periodically transferred and may have to move to any place in the country. A number of 'central schools' (named Kendriya Vidyalayas) have been established for the purpose in all main urban areas in the country, and they follow a common schedule so that a student going from one school to another on a particular day will hardly see any difference in what is being taught (Siqueira 2015). Kendriya Vidyalayas admit other children also if seats are available. All of them follow textbooks written and published by the National Council for Educational Research and Training (NCERT). In addition to these government-run schools, a number of private schools in the country follow the CBSE syllabus though they may use different text books and follow different teaching schedules. They have a certain amount of freedom in what they teach in lower classes.

At the national level, the NCERT plays a key role in developing policies and programmes, and also responsible for developing a National Curriculum Framework. Each state has its counterpart called the State Council for Educational Research and Training (SCERT). These are the bodies that essentially propose educational strategies, curricula, pedagogical schemes and evaluation methodologies to the state department of education. The SCERTs generally follow guidelines established by the NCERT. But the states have considerable freedom in implementing the education system (NCERT 2011).

The second central scheme is the Indian Certificate of Secondary Education (ICSE). Both the CBSE and the ICSE councils conduct their own examinations in schools across the country that are affiliated to them at the end of ten years of schooling (after high school) and again at the end of twelve years (after higher secondary). Besides these, there are purely State Government-run schools, Government-aided schools and purely Private Schools which are all affiliated to the State Education Department.

To give fillip to the constitutional obligation of providing free and compulsory elementary education for all children in the age group of 6-14 years, and

for purposes of equity and quality, as well as an outcome of the World Conference on Education For All by all countries in Bangkok in 1990, wherein the Heads of States affirmed this provision, Education For All (EFA), came into effect in 1994 (UNESCO 1990).

In the Indian context EFA would imply:

1. Expansion of early childhood care and development activities including family and communities, especially for poor, disadvantaged and children.
2. Universal Elementary Education (UEE), viewed as a composite programme of access to elementary education for all children up to 14 years of age; universal participation till they complete the elementary stage through formal or non-formal education programme; and universal achievement of at least the minimum levels of learning.
3. Drastic reduction in illiteracy, particularly in the age group of 15-35, bringing the literacy level in this age group at least to 80% in each gender and for every identified disadvantaged group, ensuring that the levels of three R's are relevant to the living and working conditions of the people.
4. Provision of opportunities to maintain, use and upgrade their education, and provision for the facilities for developments of skills, to all persons who are functionally literate and those who have received primary education through the formal and non-formal channels.
5. Creation of necessary structure and setting in motion processes which would empower and make education an instrument of women's equality.
6. Improving the content and process of education, people's culture and their living and working conditions, thereby enhancing their ability to learn and cope with problems of livelihood and environment (Shirname 2007).

The Centrally-Sponsored Scheme of District Primary Education Programme (DPEP) was launched in 1994 as a major initiative to revitalise the primary education system and to achieve the objective of universalization of primary education. Under the programme parameters, investment per district was limited to Rs. 0.40 billion over a project period of five to seven years. There was a ceiling of 33.3% on civil works component and 6% on management cost. The remaining amount was required to be spent on quality improvement activities. DPEP was an externally aided project. 85% of the project cost is met by the Central Government and the remaining 15% was shared by the concerned State Government. The Central Government share was resourced through external assistance.

Currently, SSA is implemented as India's main programme for universalizing elementary education. Its overall goals include universal access and retention, bridging of gender and social category gaps in education and enhancement of learning levels of children. SSA provides for a variety of interventions, including *inter alia*, opening of new schools and alternate schooling facilities, construction of schools and additional provisioning for teachers, periodic teacher training and academic resource support, textbooks and support for learning achievement. These provisions need to be aligned with the legally mandated norms and standards and free entitlements mandated by the RTE Act in 2011 (MHRD 2011b).

The RTE Act makes education a Fundamental Right of every child between the ages of six and 14 and specifies minimum norms in elementary schools. It requires all private schools to reserve 25% of seats to children (to be reimbursed by the state as part of the public-private partnership plan). Kids are admitted in to private schools based on caste based reservations. It also prohibits all unrecognised schools from practice, and makes provisions for no donation or capitation fees and no interview of the child or parent for admission. The act also provides that no child shall be held back, expelled, or required to pass a board examination until the completion of elementary education. It provides for children's right to an education of equitable quality, based on principles of equity and non-discrimination. Most importantly, it provides for children's right to an education that is free from fear, stress and anxiety.

3 Prevocational Education

Skill development initiatives at the primary and upper primary level in India are yet to fully take off in an organised manner (see chapter 3). As mentioned elsewhere, the importance of providing basic education along with introducing the child to vocational skill was recognised during pre-independent India, mooted by the Father of the Nation Mahatma Gandhi and holds a unique place in the history of elementary education in India. The Wardha Commission of 1937 gave a concrete shape to this scheme, which would in essence provide three R's in addition to teaching them a vocational skill, thereby inculcating dignity of labour among the children. National Policy on Education Committee of Members of Parliament was constituted by the Government of India is 1967 which, *inter alia*, mentioned that work experience should be an integral part of general education at the school stage. This thought was clearly enunciated by Gandhiji's pedagogy of *Nai Talim* (the new exercise) as long back as 1937 thus,

> *"Traditional and colonial forms of education had emphasized literacy and abstract, text-based knowledge which had been the domain of the upper castes. Gandhi's proposal to*