

Possible FUTURES for the Indian APPRENTICESHIP System Options Paper for INDIA



THE WORLD BANK



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Contents

Acknowledgements	iv
Foreword	v
Introduction	1
Background	2
The Indian Apprenticeship System	4
Potential Application of Identified Features of a Model Apprenticeship System to the Indian Context	21
Possible Options for India	26
Two Issues: Expansion of the System, and Informal Apprenticeships	33
References	36
Appendix 1: Analysis of selected Documents on the Indian Apprenticeship System	38

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Last, but not the least, the World Bank would like to thank DfID for providing its resources through a Trust Fund.

Foreword

Reform of the Indian skills development system is proceeding at a rapid pace, with significant change planned and underway in many key areas to make the supply of skills more responsive to the growing demands of the Indian economy.

In this environment, the potential of formal workplace training programs is currently being explored to progress key elements of the National Skills Development Policy (2009). In particular, apprenticeships have been recognized as an effective way for young people to make the transition from school to work whilst at the same time improving links between industry and training institutions. The Indian apprenticeship system is well established and supported by legislative and administrative arrangements that span several decades. However, by international standards, it is considered to be under-utilised, with inadequate incentives for employers, and insufficient structure and resources to support quality vocational outcomes.

In this context, the ILO and World Bank have jointly conducted a study to review international good practice in apprenticeships and workplace learning, and recommend options for future development of the Indian apprenticeship system.

This work involved two distinct stages: the first saw an international review of eleven national apprenticeship systems, including India, and development of a model apprenticeship framework. The second stage developed an options paper for future reform of the Indian system which took into account of the model framework in the particular context of India.

This report presents the Indian case study and the options paper for reform in a single reference, a report which has already provided timely inputs to the on-going reform of apprenticeships in India.

We commend this report to you as an example of high quality technical inputs on skills policy and evidence of effective collaboration between our two organisations.

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Introduction

The purpose of this report is to use ideas gained from ten other national apprenticeship systems to put forward options for the Indian system. These countries are Turkey, Indonesia, Egypt, South Africa, Australia, Canada, USA, England, Germany and France. The report of the international phase of the research project is separately available¹. The latter includes individual country case studies containing detailed information about the systems in these other countries (in addition to an Indian case study) presented in a common structure, a cross-case analysis, and a proposed framework for a model apprenticeship system.

The options for India were presented at a Technical Consultation in New Delhi in September 2012 and the outcomes of that consultation are included in this report. The consultation indicated that there was widespread support for quite radical changes in the system.

While this report attempts to evaluate the applicability of the proposed options, it is acknowledged that the suitability of the options is best determined by those with detailed experience and knowledge of the Indian system. Moreover, it needs to be stated that a complete new framework for the system has not been proposed. Experience in other countries has shown clearly that systems cannot be transplanted from one national culture to another; however, individual features of national systems can be introduced or adapted with considerable utility at particular points in time.

1 Smith E., Brennan Kemmis R., et al (2013). Towards a model apprenticeship framework: A comparative analysis of national apprenticeship systems. Geneva: ILO.

Background

Apprenticeship can play a large part in the task of up-skilling India's workforce, offering the opportunity to share costs among different parties (employers, individuals and the government) and to involve governments, employers and workers in partnerships. The expansion of apprenticeships needs to work alongside other VET developments such as the Sector Skills Councils and the National Vocational Qualification system. In any expansion of the system, quality must be a pre-eminent consideration.

For apprentices, an apprenticeship provides a chance to earn an income while learning, and to combine theoretical and practical training. Satisfying the aspirations of apprentices must be a central part of any reforms. For employers, apprenticeship provides a structured form of training that should provide confidence in the quality of people who have completed apprenticeships.

The focus of this report is on the Trade Apprentice system. However, there is potential for some of the options to be translated for Graduate, Technician and Technician (Vocational) apprentices. The report concentrates on formal apprenticeships, with discussion of informal apprenticeships at the end of the paper.

Moving from the 20th to the 21st century

India has a well-established and regulated apprenticeship system. However, as is the case in many other countries, the modern-day Indian apprenticeship system was laid down in the mid-twentieth century. At that time the economy was very different (for example, greater emphasis on manufacturing), and also expectations about work and learning were different. In particular, the expectation that learning would occur only at the start of one's working life has changed, since that time, throughout much of the world.

Other countries have also been grappling with the need to change their apprenticeship systems. In the Anglophone world, Australia (in the 1980s and 1990s) and more recently the UK have been moving to a mass apprenticeship system with coverage (in non-graduate jobs) across all sectors in the economy. These countries have also allowed mature-aged workers to undertake apprenticeships, as well as young people, and allowed entry to people already employed by a company. In the UK, for example, apprenticeships have increased ten-fold in less than a decade. On the other hand, countries like Canada have continued to confine their apprenticeship system primarily to manufacturing and construction jobs, and although their systems are successful, they are narrow in reach.

India faces a choice about whether to move into mass apprenticeships or to remain with a relatively limited apprenticeship system. Currently India has only about 300,000 apprentices compared with a labour force of nearly 500 million people. This proportion of less than 0.01% of the workforce compares unfavourably with the countries described in the full report of this project as having 'small' systems, such as the United States with a participation rate of 0.3% of the workforce. We compared the 'small system countries' with 'large system countries' such as Germany and Australia, which both have around 3.7% of their workforces participating in apprenticeships.

However, it needs to be remembered that around 90% of India's economy is informal, and so the proportion of India's formal workforce that are apprentices should in fact be seen as around 0.1%. This is still a small proportion compared with other 'small system' countries, but one that is not inconsistent with other developing countries.

The relatively small size of the current system provides an opportunity to fashion a modern and targeted system that requires relatively low adjustment costs and would encounter relatively low levels of opposition as compared to those countries with much larger systems that try to change direction. Refashioning of the system also provides an opportunity to consider how the informal economy and informal apprenticeships might be incorporated into a broad system.

The Indian Apprenticeship System

Overview of the Indian system

This section of the report describes the current Indian system, using information from major reports and legislation, and other relevant literature and documents relating to the Indian system and the Indian labour market. In addition, some scholarly literature is examined. The focus is on trade apprenticeships (those overseen by the Ministry of Labour and Employment) rather than graduate or technician apprentices. The document discusses identified problems with the system and recommendations that have been proposed for reform. It ends by discussing seven issues in some depth.

Parts of the document are drawn from the initial case study on India produced for the full project report by Dr Bibhuti Roy of the University of Bremen (Roy, 2013). The document does not claim to be comprehensive nor to capture all the nuances of a complex system in a rapidly developing environment.

It is apparent from stakeholder interviews that the process of apprenticeship reform in India is a controversial and active public policy matter. There is an intersection with other labour market issues. While many other countries are experiencing uncertainty and controversy in this area, the challenges in India are particularly great, not only because of its size and lack of homogeneity, but also because of the large proportion of informal apprenticeships. Moreover, India has a high level of youth unemployment, around 50% (Nagarajan & Kaliyamoorthy, 2010) with higher levels in urban than rural areas. There seems to be agreement on the need for change in the system but the process of reform does not appear clear.

Background information

India is the world's second-most populous country with over 1.2 billion people. Its population grew at 1.76% per annum during 2001-2011, a somewhat lower rate than 2.13% per annum of the previous decade (1991-2001). If the population growth were to continue at this rate, India will have about 1.45 billion inhabitants in 2025 (Federal Institute of Vocational Education [BIBB], 2011).

India is one of the world's fastest-growing economies with its annual GDP growth rate of 5.8% over the past two decades, and reaching 6.1% during 2011-2012. The service sector makes up 55.6% of GDP, the industrial sector 26.3% and the agricultural sector 18.1% (International Monetary Fund, 2011). According to IMF, the Indian economy is worth US\$1.676 trillion; it is the eleventh-largest economy by market exchange rates. The economic growth has been driven by the expansion of services (communication, business, financial and community sectors) that have been growing consistently faster than other sectors. It is argued that the pattern of Indian development has been a specific one and the country may be able to skip the intermediate industrialization-led phase in the transformation of its economic structure. But serious concerns have been raised about what has been depicted as the jobless nature of the economic growth (Virmani, 2004).

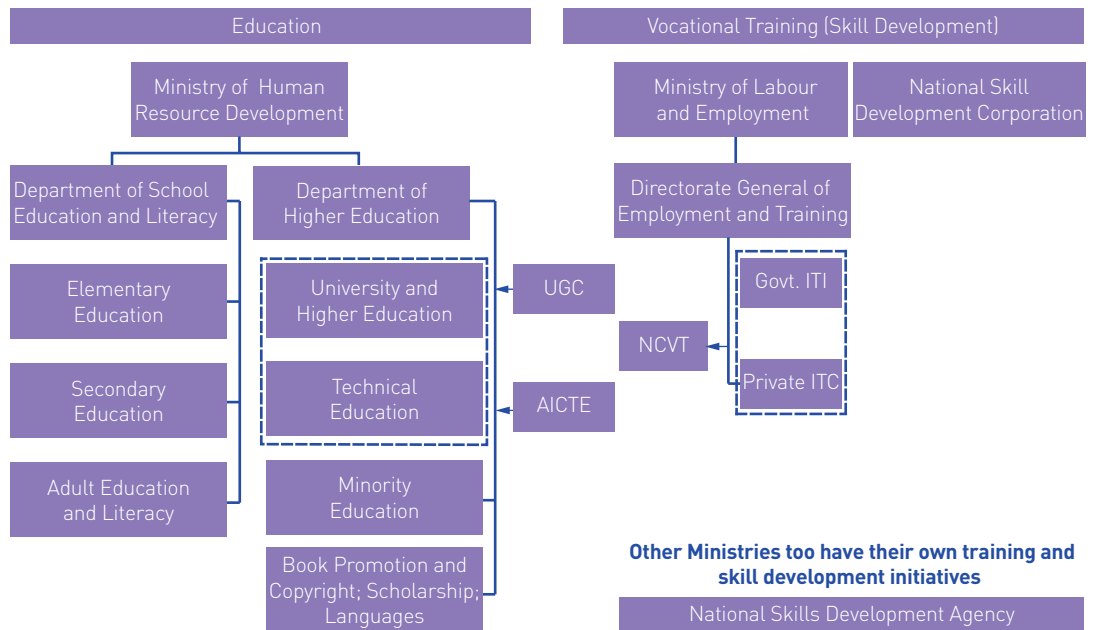
The Indian labour force is the world's second largest (Economist, 2011) with 487.6 million workers. The agricultural sector employs most of the national workforce and is second in farm output worldwide (Olson, 2009). For the economy to continue to grow and expand, it is assumed that a large portion of the workforce will migrate from the primary sector (agriculture) to the secondary and tertiary sectors. The skills that are required in both these sectors are quite different from those required in the agricultural sector (Federation of Indian Chambers of Commerce & Industry [FICCI], 2010). This implies that there is/will be a large skill gap when such a migration occurs. India is expected to be home to a skilled workforce of 500 million by 2022 (Ministry of Labour and Employment [MOLE], 2010) and this is an extremely ambitious policy aspiration.

The Indian education and training system

The following diagram (Figure 1) shows the basic structure, and the responsibilities of the various components, of the Indian educational and training systems.

Education, including all aspects of higher and college education, is overseen by the Ministry of Human Resource Development (MHRD). The University and Higher Education arm is responsible for college education (Arts, Science, Commerce etc.), while engineering education, polytechnics etc. are under the category of Technical Education. The University Grants Commission (UGC) provides funds in the forms of grants and also coordinates as well as sets standards for teaching, examination and research in universities. The All India Council for Technical Education (AICTE)

FIGURE 1: Current Structural Framework of the Education and Skill Development Sector in India



Source: FICCI (2010) Report on the Skill Development Landscape in India.

is the regulatory body for Technical Education in India. Their objectives are i) the promotion of quality in technical education, ii) the planning and coordinated development of technical education system and iii) the maintenance of norms and standards.

A large part of the current vocational training infrastructure, namely the Government Industrial Training Institutes (ITIs) and private Industrial Training Institutes (ITIs), are regulated by the Ministry of Labour and Employment’s (MOLE) Directorate General of Employment and Training (DGET). The National Council on Vocational Training (NCVT) plays a key role in the formation of training curriculum, policies standards, as well as in certification by means of the ‘trade test’. The National Skill Development Corporation (NSDC) has been set up under Public-Private Partnership mode under the Ministry of Finance to provide viability gap funding and coordinate private sector initiatives. The Prime Minister’s National Council on Skill Development has been formulated to coordinate action on skill development. The capacity of the education and skill development systems is shown in Table 1 on next page.

About 227 million students are enrolled in the school education sector, while the enrolment in vocational training and higher education is about 15.3 million. There are approximately 1.3 million schools in India, at which 227 million pupils are registered. There is a high teacher-pupil ratio of 1:60 in the primary schools. A high attrition rate is recorded in primary education, mainly in the state-regulated

TABLE 1: Enrolment in the Indian education and skill development systems

Category	Sub-Category	Enrolment
School Education	Pre-Primary Students	5,264,053
	Primary (Class 1- V)	132,048,727
	Secondary (Class VI- VIII)	52,195,171
	High School (Class IX-X)	24,971,520
	Higher Secondary (Class XI-XII)	13,414,499
	Sub-Total	227,893,970
Vocational Training	Vocational Training- ITI/ITC	1,062,524
Higher Education	Ph. D/D. Sc/D. Phil.	36,019
	M.A.	481,521
	M.Sc.	230,247
	M.Com.	156,714
	B.A./B.A. (Hons.)	3,727,727
	B.Sc.	1,579,355
	B.Com.	1,455,457
	B.E./B. Arch.	1,668,228
	Medicine, Dentistry, Nursing, etc.	305,629
	B. Ed.	244,825
	Enrolment in Open Universities	773,917
	Polytechnic Institutes	690,410
	Others	2,973,517
	Sub-Total	14,323,566

Source: Annual Report 2009-10 of Ministry of Labour and Employment (MOLE).

schools. 12 million to 13 million school leavers, either those completing education or leaving early, move to the education and job market yearly (FICCI, 2010).

The nature of the apprenticeship system

Apprenticeship in India means a system of training in which an employer engages a person as an apprentice to train him/her systematically in the designated trade for the respective period prescribed under the Apprentices Act. The Indian National Apprenticeship Scheme began in 1959 on a voluntary basis. However the Scheme did not achieve the expected results, and the Apprenticeship Scheme was brought under the ambit of the Apprentices Act in 1961 that was implemented in 1962. It had two primary objectives:

- ▶ To regulate the programme of training of apprentices in the industry so as to conform to the prescribed syllabi, period of training, etc., as laid down by the Central Apprenticeship Council.
- ▶ To utilize fully the facilities available in industry for imparting practical training with a view to meeting the requirements of skilled manpower for industry.

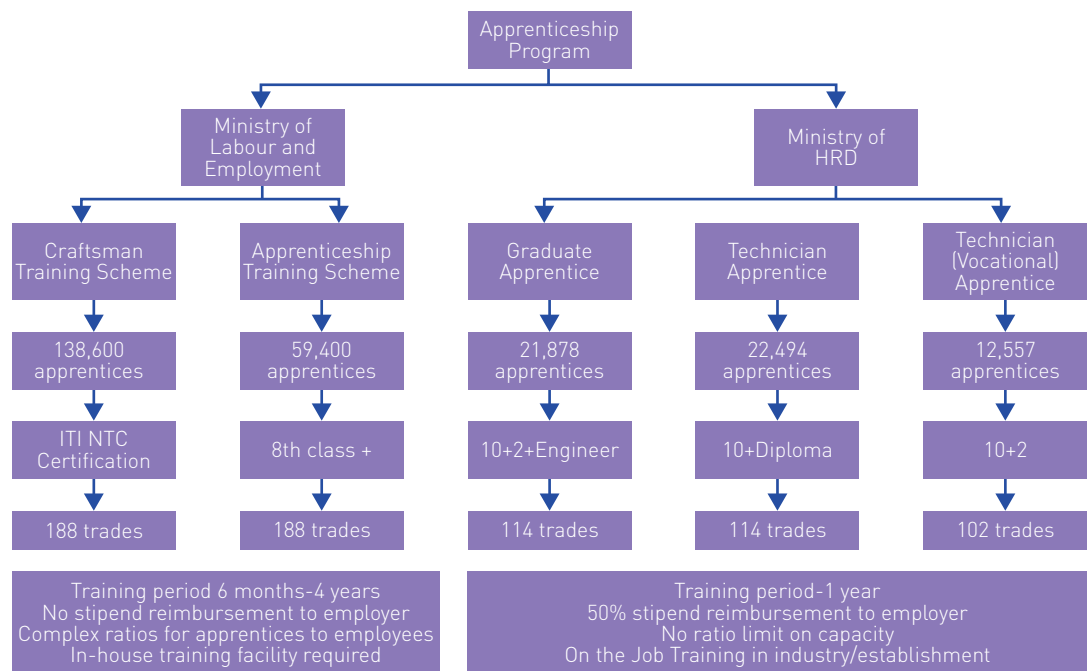
The Indian Apprenticeship Act (1961) was drawn up based on the principles of 'learning by earning' and 'learning by doing'. It was envisaged as being able to target and fully utilise the facilities available in industry for practical training with a view to meeting the requirements of skilled manpower for industry. It has been amended multiple times over the years to address various issues of the employers, industry, candidates and the government. But these changes have not had the desired effects. The number of apprentices in the country has remained stagnant and has not increased over the years. Only 215,000 persons were undergoing apprenticeship training against a seating capacity of 320,000 in 2008-2009 (Directorate General of Employment and Training [DGET], 2009).

There are four categories of apprentices: 1. Trade Apprentices, 2. Graduate Apprentices, 3. Technician Apprentices and 4. Technician (Vocational) Apprentices.

Figure 2 shows the numbers of participants and the coverage by numbers of occupations. Trade apprentices include those in the Craftsman Training Scheme and the Apprenticeship Training Scheme.

The Directorate General of Employment & Training (DGET) is responsible for implementation of the Act in respect of Trade Apprentices in the Central Government Undertakings and Departments. The Department of Secondary and Higher Education in the Ministry of Human Resource Development is responsible for implementation of the Act in respect of Graduate, Technician

FIGURE 2: India's apprenticeship regime



Source: Planning Commission Sub Committee on re-modelling India's apprenticeship regime (2009). Report and Recommendations. New Delhi, p. 2. Retrieved from: http://planningcommission.gov.in/reports/genrep/skilldev/sbcom_app.pdf.

and Technician (Vocational) Apprentices. It is obligatory on the part of employers both in public and private sector establishments to have a training infrastructure – as laid down in the Act before they can engage apprentices. According to the annual report (2008-2009) of the Ministry of Labour and Employment (<http://dget.nic.in/>), 254 groups of industries are covered under the Act, and about 23,900 establishments engage apprentices.

Apprenticeships are time-based, with the duration specified at six months, one year, eighteen months, two years, three years or four years. The assessment of apprentices at the end of their training is undertaken using the All India Trade Test, administered by the National Council for Vocational Training. The number of apprenticeship places available in each occupation and region is officially set. 'Seats' for trade apprentices are determined by the Apprenticeship Advisor on the basis of the prescribed ratio of apprentices to workers, and the availability of training facilities. Every apprentice and employer needs to enter into a contract of apprentice training which is registered by the Apprenticeship Advisers.

Educational prerequisites apply for entry into each of the apprenticeship categories. Trade apprentices (i.e. those overseen by MOLE) may enter by two routes, depending on their prior qualifications. If they have completed only basic education, they enter the 'Apprentice Training Scheme'; these apprentices are known as 'full-term apprentices'. If they have completed training and certification at an ITI or ITC, they enter the 'Craftsman Training Scheme' which shortens the term of training considerably. The training terms, and the trades covered by apprenticeships (188 in 2009) are contained in the Schedule to the Act.

Apprentices are paid a stipend, which is specified in government regulations and revised every two years based on the consumer price index (DGET, 2007). The arrangements vary with the category of apprenticeship. The stipend of trade apprentices is paid by the employer and increases over the period of the training programme. The monthly rates are Rs. 1490 in the 1st year, Rs. 1700 in the 2nd year, Rs. 1970 in the 3rd year and Rs. 2220 in the 4th year (taking effect from 18th October, 2010). The stipend of graduate, technician and technician (vocational) apprentices is shared equally between the employer and the government. In 2008 it was Rs. 2600 per month for graduate apprentices, Rs. 1850 for technician apprentices and Rs. 1440 for technician (vocational) apprentices (MOLE Annual Report, 2009). As can be seen in Figure 1, stipends are partly refunded to employers of graduate, technician and technician (vocational) apprentices, but not to employers of trade apprentices.

Legislation

The legislation that surrounds the operation of apprenticeships is highly significant in that it sets out the ways in which recruitment, training, conditions of work, contractual arrangements and compliance are organised. Legislation, and the ways in which the legislation is enacted, has a powerful influence on

the environment in which apprenticeships are conducted, and it can enable or constrain the expansion of apprenticeships by facilitating or inhibiting the involvement of all stakeholders. The level of legislative responsiveness to changes in the economy, the demography and the 'voices' of industry is a crucial factor in the continuing success of apprenticeships as a way of providing skilled labour for a country.

In India the Apprentice Act 1961 governs the employment, conditions, training and wage structures of apprentices and employers operating within in India.

The Act has as its goals:

1. The regulation of the programme of training of apprentices in industry, according to a prescribed curriculum, period of training etc., as set down by the Central Apprenticeship Council.
2. To utilise the facilities available in industry for practical training.

It is characterised by the ethos of 'Learning while Earning'. The Act covers the four categories of apprenticeship mentioned earlier. The Act has a number of sections and these are summarised below.

The number of apprentices for a designated trade

1. The central government determines the ratio of trade apprentices to workers in that trade.
2. The central government determines the appropriateness of the facilities for apprentice training inside the particular industries.
3. The Apprenticeship Adviser may require employers to engage trade apprentices within the ratio determined by the government.
4. Several employers may join together for the purpose of providing practical training to the apprentice.
5. The government may require employers to train additional numbers of apprentices.

The practical and basic training of apprentices

1. Employers must make arrangements for practical training in the workplace.
2. Central Apprenticeship Advisers have the right of inspection.
3. If employers have more than 500 workers, a separate area must be set up for apprentice training and some government loans are available for this.
4. Basic training for the apprentices is provided in training institutes set up by the government.

5. Arrangements for the provision and funding of basic training for various categories of apprentices is complex.
6. The costs of training are to be carried by the employer.

Related instruction of apprentices

1. An apprentice is to receive theoretical training approved by the central government.
2. This related instruction is to be financed by the appropriate government but the employer must provide the facilities.
3. Training is included in the calculation of work time for the apprentice.

Apprenticeship contract

The Apprenticeship Contract is registered with the Apprenticeship Adviser whose decision is final in any cases of dispute. If a business is closed, the Apprenticeship Adviser can move the apprentice to another employer. At the end of the training period the apprentice is required to undergo an All India Trade Test conducted by the National Council for Vocational Training, as well as a practical test.

Offences and penalties

These occur when an employer:

1. Engages an ineligible apprentice.
2. Does not carry out the terms and conditions of the contract of apprenticeship.
3. Contravenes the Act in terms of the number of apprentices which he is required to engage; he will be punished with a term of imprisonment which may extend to 6 months and accompany a fine.
4. Does not complete the mandatory documentation, or provides incorrect information or refuses to answer certain questions or employs an apprentice to undertake work that is not connected with his training, or pays according to a piece rate, or requires the apprentice to be part of a bonus scheme; the employer will be punished by imprisonment.

The Act has been amended many times to meet criticisms and suggestions from employers, businesses, chambers of commerce and other stakeholders.

Coverage of the Act

The Act specifies the groups of industries to which the Act applies. Currently there are 254 groups of industries covered under the Act and 24,815 establishments engage trade apprentices (<http://dget.nic.in/schemes/ats/ATSOversview.htm>, accessed 7/8/2012).

In 1997 the groups of industries could be clustered in the following industry groupings:

1. Primary production and agricultural production	17. Electricity generation and gas and steam generation
2. Forestry and logging	18. Construction
3. Fishing	19. Wholesale trade
4. Mining	20. Retail trade in textiles
5. Manufacture of food products	21. Restaurants and hotels
6. Manufacture of beverages	22. Land, air and water transport
7. Manufacture of cotton and other textiles and textile products	23. Warehousing
8. Manufacture of wood products such as furniture	24. Communication services
9. Manufacture of paper and paper products	25. Banking and Insurance
10. Manufacture of leather and leather products	26. Real estate
11. Chemical production	27. Business services
12. Plastics production	28. Public administration and defence
13. Manufacture of non-metallic mineral products	29. Sanitary services
14. Manufacture of machinery and parts	30. Community services
15. Transport equipment and parts	31. Recreational and cultural services
16. Repair of capital goods	32. Personal services

Source: Director General of Employment and Training; Ministry of Labour; Government of India. (<http://dget.nic.in/schemes/ats/Industries.htm> (Accessed 7/8/2012)).

Implementation of the Act

There are six Regional Directorates of Apprenticeship Training located throughout India. These are responsible for the implementation for the Act. State Apprenticeship Advisers have legislated powers and they are responsible for the implementation of the Act in relation to Trade apprentices in state government departments and private establishments.

The Department of Education in the Ministry for HRD is responsible for the implementation of the Act for Graduate, Technician and Technician (Vocational) apprentices. This is done through four Boards of Apprenticeship Training. The Central Apprenticeship Council is a statutory body and advises the government on policies relating to the Apprenticeship Training Scheme. The Central Apprenticeship Council has representatives from both central and state governments, employers and trade unions. (<http://dget.nic.in/schemes/ats.ATSOoverview.htm>) accessed 7/8/2012.

Recent developments

There have been a number of recent reports and policy documents on apprenticeship. Four of these were selected, on advice from stakeholders, for analysis, but it needs to be remembered that these are four among many recent relevant reports and documents. Appendix 1 summarises these documents under the headings of aims, identified problem areas, and recommendations.

These high level reports address a significant number of issues that confront India in its attempts to solve the dual problem of high youth unemployment and skill shortages in critical industries through the expansion of the apprenticeship system.

The first document is the National Policy on Skill Development (MOLE, 2009) which looks at national skill development as a whole, of which apprenticeship forms one, currently minor, part. The second document, the Planning Commission Sub-Committee on Remodelling India's Apprenticeship Regime (2009) is the most recent high level government endorsed effort to propose change. The third document is an analysis of Indian apprenticeship law commissioned by the ILO and the Karnataka Employers' Association (Akhilesh, 2010). The fourth document consists of input from the Confederation of Indian Industries' (CII) into a consultation process convened by the Ministry of Labour and Employment (2011); the CII document gives an industry perspective, including some issues raised elsewhere. It is notable that many problem areas, and many recommendations, are common among the documents.

Underpinning all of the discussions and reports are the issues of disparities among regions and groups of people, high unemployment, the rapidly growing economy, and the large informal economy.

Further insights are provided by The Ministry of Labour and Employment's recent report 'Trade Apprenticeship Training in India under Apprenticeship Training Scheme' (October 2011). This publication is the 13th in its series and reflects an attempt towards creating a reliable database for planning and taking corrective action in apprenticeship training under the Apprentices Act, 1961. This publication 'presents statistics on establishments engaged in apprenticeship training, intake capacity, output and their employability in the labour market along with a brief analysis of the current status of the scheme' (Preface).

The report provides some very useful information. In particular it highlights the following:

1. The intake of apprentices into industry is less than the available capacity.
2. The participation rates of establishments has increased.
3. The number of successful apprentices in the Trade Test has increased.
4. In 8 trade areas there was neither intake capacity nor enrolments.
5. In 16 trade areas intake capacity existed but there were no enrolments.

The report provides a Ministry perspective on apprenticeships in India. It helps to remind us that the system is not static while awaiting reform, but is continually evolving. It acknowledges the fact that the service sector is growing rapidly as other countries outsource technical support and customer service roles to India. It also recognises that areas for potential growth in the Indian economy include manufacturing, ship construction, pharmaceuticals, aviation, biotechnology, tourism, retailing and communications (p. 1). Apprenticeships are regarded as a part of a much broader policy thrust to improve the skill levels of the population whilst simultaneously addressing some of the social, economic and educational problems that confront India.

Identified issues in the Indian system

A number of issues were identified as a result of analysis of the Indian system using the information provided above, as well as official reports, research papers, published stakeholder submissions to government inquiries, and telephone interviews with stakeholders. First, an overview is provided, and then more detailed discussion of thirteen major issues. In the overview, the issues can be divided into issues relating to the apprenticeship system itself and contextual issues.

Overview

Issues relating to the apprenticeship system itself

- ▶ Participation, both of employers, and of workers, is very low compared with other countries.
- ▶ Stipend rates for apprentices are very low.
- ▶ There are high levels of regulatory requirements for employers and associated penalties for non-compliance.
- ▶ There is a shortage of trained teachers and trainers.
- ▶ There is a lack of infrastructure in ITIs – modern equipment, raw materials etc.
- ▶ There is little coverage of trades in the service sector, which has high employment potential.
- ▶ There is a lack of coverage of apprenticeships in rural areas.
- ▶ The curriculum is sometimes outdated and inflexible.
- ▶ There is a lack of convergence between various agencies.
- ▶ There are low rates of employment after completion of apprenticeship.
- ▶ There is a lack of vertical mobility of apprentices into higher-level qualifications.
- ▶ There is a lack of involvement by employers or industry bodies in curriculum development or review.
- ▶ The quota system does not appear to be effective.

Contextual issues

Those that provide an imperative for the expansion of apprenticeships:

- ▶ Requirements for large numbers of skilled workers.
- ▶ Limited capacity of institutional training to provide larger numbers of qualified and skilled workers.
- ▶ High unemployment and high youth unemployment in particular.
- ▶ Oversupply of graduate-qualified people versus trade-qualified people.

Those that make expansion of apprenticeships difficult:

- ▶ Low status of VET.
- ▶ Low social status of apprenticeships in particular.
- ▶ The large informal economy.
- ▶ Large proportion of population in rural areas.
- ▶ Limited capacity of government to administer a larger system of the current level of complexity.

Thirteen major issues

In this section we analyse a number of issues in more detail. Some of these issues are also found in other countries and are discussed in the full report (Smith et al, 2013).

1. Lack of enterprise engagement in the system

Considering the size of the Indian economy, the number of enterprises that take on apprentices is extremely low – around 24,000 establishments. By comparison, the number of employers that employ apprentices in just one state in Australia, Queensland (only the third most populous state), is 22,500, and in the UK there are 120,000 sites employing apprentices, although that includes multiple sites of major companies. The low number of participating enterprises is reported to be partly due to the limited occupational coverage, but also due to the high requirements placed upon employers, as explained in several of the points that follow.

2. Inappropriate requirements for in-company training

Trade apprentices must be provided basic training and ‘related instruction training’ as laid down by the Apprentices Rules and this has to be provided by employers. This requirement is in addition to the practical training gained through working, and it is unusual among national apprentice systems for employers to be required to provide formal class-room-based training. The in-house classroom training cannot be outsourced except in exceptional circumstances. The effect of this rule is that substantial costs for the provision of this basic training, only in the case of Trade Apprentices, must be carried by the employer, and this makes recruitment of apprentices relatively unattractive. Under the Craftsman Training Scheme

there is no requirement for in-company formal training, as it is assumed that they have received their basic training through prior instruction at a government-run Industrial Training Institute or privately-run Industrial Training Centre, for which the apprentices receive certification. Despite the prescriptive regulation, there is nevertheless concern in some quarters that apprentices are not being properly trained in companies, and a perception that they are sometimes used as cheap labour.

Rule 9 (A) in the apprenticeship regulations mandates the staffing pattern and qualifications of the staff required to run in-company Basic Training, and the practical facilities required. The requirements are stringent and are oriented to manufacturing companies with large workforces, with limited relevance to the growing service skills sector. The qualifications of the instructors are also codified under Rule 9 Schedule IV; these are also stringent as they require, in addition to a certificate and experience, more advanced industry qualifications. However, it is not necessary, only 'desirable', that training staff have a qualification in teaching or training. Thus, although companies are required to provide formal in-house classroom training, they are not required to employ staff qualified in teaching or training. It is also reported that the curriculum for apprenticeship training is poor-quality and out of date.

3. Concerns about quality of workplace curriculum

Indian companies, under the Act, must take apprentices where directed, but there is no guarantee that the training they receive is of a high quality. One of the major reasons for the lack of uniform quality is the absence of workplace curriculum that is current, accessible and able to be implemented in the workplace. The training curriculum is recognised as being outdated and there are concerns that the theoretical component is insufficient. There is also a concern that employers train apprentices only in the skills and procedures for their particular workplace. The fact that there is a pass rate of only about 70% for apprentices who undertake the apprenticeship certificate tests can be seen as an indicator of inadequate training.

In the absence of a large-scale and well-regarded apprenticeship system, many large companies have developed their own customised training programs for new entrants into the industry. Employers who are dissatisfied with current training arrangements design their own for their own particular labour force needs. This means that the workers have no access to nationally recognised qualifications, and there is no mechanism within the system for the registration of industry-based training providers.

4. Lack of external off-the-job training

In most other countries, a 'dual' model of apprenticeship training is offered. Apprentices attend a training provider on a regular basis, for example on 'day release' or on 'block release'. Approximately one-fifth of apprentices' time in many countries is spent in this way. The arguments for such a system are that apprentices have a richer learning experience, a poorly equipped or staffed

workplace is compensated for, and apprentices learn from other apprentices. The system also lessens the need for employers to provide theoretical training or to provide space and equipment for off-the-job learning. In other words, the responsibility for ensuring that an apprentice is skilled at the end of his or her term is shared among two parties. In the Indian system, once people commence an apprenticeship, having completed either ITI/ITC vocational qualifications or basic training, they do not undergo any further external training.

5. Limited occupational coverage

The Indian formal apprenticeship system has a limited, and in some ways outdated, list of designated trades in which apprenticeships can be offered. Directorate General of Employment and Training figures show 97 industries covered by the Apprentices Act (<http://www.dget.gov.in/schemes/ats/Industries.htm>) and 35 Groups of Designated Trades, each having several sub-groups (<http://dget.nic.in/schemes/ats/ATStrade.pdf>).

Numbers in most trades are small. Figures for apprentice commencements in 2009 show that only nine occupations had an intake of more than 1000 apprentices and only three of those (food production, steward and retail assistant) were in non-manufacturing/utilities areas. Many trades had just a handful, or nil, entrants, and there is a relative exclusion of the service and business sectors in the lists of trades in which apprenticeships can be offered.² The wording of the legislation indicates that the system is targeted at the manufacturing industry. Yet the manufacturing industry employs only about 11% of the workforce, with only 21.5% in manufacturing, construction, utilities and mining combined³.

While it is possible for new occupations to be added by MOLE on request from enterprises, it is reported that the system for doing this is cumbersome and slow, and there does not appear to be a systematic process in place for scanning the economy for the purpose of adding new occupations, as there is, for example, in Germany.

6. Limited employer and industry involvement

The complexity of the apprenticeship system, the absence of public knowledge about its operation and the lack of branding – all contribute to a lack of industry involvement in the formulation of policies and practices relating to apprenticeships. Under the National Policy on Skills Development, 21 Sector Skills Councils are being slowly established, and these represent an effort to more closely align business, industry, employers and other stakeholders in Public Private Partnerships. However, it still remains the case that industry does not feel that it has a 'voice' in the formulation of policy or in the practical day-to-day implementation of the apprenticeship systems.

2 Annexures, Trade apprenticeship training in India as on 31.12.2009, 2011, Ministry of Labour & Employment.

3 Second annual report to the people on employment 2011, Ministry of Labour & Employment.

Individual employers also face obstacles in their involvement. Pan India companies (with apprentices in more than four states in the country) have to negotiate a number of state and central government instrumentalities to gain approval, and this is a stumbling block. Approval for private sector companies to take apprentices comes under the control of the states. For companies operating across a number of states this becomes a highly bureaucratic process, and industry associations are only involved in a limited way.

7. Overly strict and burdensome regulation and compliance

Analysis of the Apprenticeship Act (1961) stipulations and of recent reports on the Indian system confirms the fact that compliance is onerous for employers and often involves high costs accruing to the employers, and penal consequences and fines for breaches of the legislation and the accompanying Schedule of Rules. Enforcement of the rules is said to be lax but this is unlikely to comfort employers who are afraid to participate in the formal system because of the penalties for any breach of the regulations that may include periods of imprisonment. The heavy requirements for in-company off-the-job training mean that employers must jump a high bar to be considered satisfactory as apprentice employers. Moreover, apprentices enjoy better employment conditions and employment protection than other employees and this has been reported as leading to a reluctance to hire apprentices as it is not easy to terminate them. Apprentices are also relatively expensive to employ in terms of holiday provision, allowable hours of work etc, although the stipend is low.

Reporting requirements are also heavy, with detailed information about each apprentice being required. It is difficult to see the purpose for such detailed information and it would not be possible to continue these practices if the system was to be expanded, because the administrative burden would be too great.

8. Low status of apprentice training

India has a very long tradition of informal training and workplace learning. This tradition is preserved today in the 'informal apprenticeship system' that exists alongside the formal system. However the formal system appears to have been beset by a range of problems that have resulted in a low level of esteem and status. In India the perceived low status of vocational education has meant the better graduates of secondary schools are unlikely to choose to undertake apprenticeships.

9. Responsibilities of parties unclear

The overly complex administrative systems mean that it is difficult for apprentices, employers and other stakeholders to understand the system and their roles in it. There is a relative lack of easily accessible information. This means that the different parties may be unclear about their responsibilities. At a higher level, there is willingness among stakeholders such as industry bodies to help to grow the apprenticeship system but the points of intervention are difficult to pinpoint.

In most, if not all other countries, apprenticeship systems are regarded as complex; so in itself complexity is not necessarily an issue. However, there need to be 'nodes' of expertise in the system where people can receive advice, information and support.

10. Need to involve more and more diverse participants

There is concern surrounding the reservation of apprenticeship places to allow for disadvantaged groups, notwithstanding a wish to provide opportunities for such groups. In 2008 the Apprentice Act was amended in relation to reservation for candidates in 'Other Backward Classes'. However, the reservation requirement creates further burden for employers. South Africa has turned its apprenticeship system from being white-dominated to being broadly racially representative. In that country this was part of a broader national imperative to redress apartheid deficits; reporting was required to include race and gender of participants.

In addition, apprentices are predominantly young people (with a minimum age of 14), and there is no designated system for mature-aged people to access apprenticeships. In other countries apprenticeships are generally explicitly open to all ages, although there may be differential incentives to encourage young people into apprenticeships, as it is generally regarded that apprenticeship is especially useful for young people. In India, a large proportion of the adult population is unskilled and apprenticeship could offer the possibility of up-skilling to this part of the workforce.

Gender has also been identified as an issue, with women having less representation in apprenticeships than men. This is most readily explained by apprenticeships being focused on occupations normally favoured by males, and is a feature of countries with relatively small apprenticeship systems. Similarly the relative under-representation of rural areas in apprenticeships can be related to the type of occupations routinely involved, rather than any specific urban bias. The gendered nature of apprentice and other vocational training is well recognised in India, and it has been suggested that there is a need to improve the quality of training for those occupations chosen by girls, recognising that they would not necessarily wish to undertake 'male' occupations (MOLE, 2009).

The physical fitness requirements of the Apprenticeship Rules limit the opportunity for some people to participate. However there is provision for people with specific disabilities.

11. Inadequate stipend

The stipend that is required to be paid to apprentices is very low and is not sufficient to live on. While employers may choose to pay more to their apprentices, they need not. In India, unlike in other countries, low wages are not compensated for by any certainty of post-apprenticeship employment. In contrast to the other Indian apprentice schemes, Trade Apprentice stipends are not subsidised by the government. The low stipend means that people are deterred from taking

up apprenticeships. It is normal in other countries for apprentices to be paid a discounted wage (i.e. not as much as other workers), but generally this is set at a proportion of the normal wage for that industry, or as a proportion of the minimum wage.

12. Lack of progression into higher qualifications

In the continuing absence of a well-developed national qualifications framework, it is difficult for apprenticeship certificates to offer progression into higher level qualifications. Apprentices who pass their trade tests (All India Trades Tests) obtain a National Apprenticeship Certificate. However, without integration into a national qualification framework, such certificates stand outside the formal educational system and are therefore relatively unattractive to potential entrants who will look for potential pathways upwards.

13. Limited progression into permanent employment

It is reported that apprenticeships tend not to lead to permanent employment. They are not, reportedly, retained by the employer who provided them with the apprenticeship, nor are they greatly in demand in the labour market among other employers. These are two different issues with, potentially, different sets of reasons. Included among the reasons could be some or all of the following: low level of skills development, lack of respect for the apprenticeship certificate, apprenticeship seats not being attached to a genuine work need, and too great a disparity between apprentice stipends and workers' pay meaning that it is cost-effective to keep employing new batches of apprentices. Without specific research on these issues, it is not possible to say which reasons apply. In addition to the problem of employment on completion, there is also no provision for finding alternative places for apprentices who lose their jobs through no fault of their own.

Potential Application of Identified Features of a Model Apprenticeship System to the Indian Context

The international comparative report (Smith, Brennan Kemmis et al, 2013) developed and described the features of a model apprenticeship system, based on analysis of the various country case studies. Table 2 below selects those features most relevant to the Indian context, with slight adaptations, and maps them against the issues in the Indian system identified in the project so far. Expansion strategies are discussed later.

TABLE 2: Selected features of a model apprenticeship system, mapped against identified issues in India

Recommended feature	Identified issues in India
Occupational coverage	
Apprenticeships are available in a wide range of occupations, particularly those that are typically undertaken by women as well as men, and including the public service and government instrumentalities	5. Limited occupational coverage
Participation	
Pathways exist for disadvantaged people, including those with disabilities, and for people without necessary entry qualifications	8. Status of apprentice training 10. Need to involve more and more diverse participants
Pathways into apprenticeship (and beyond) are clear and well publicised to reach all potential candidates	
National government structures	
National policy equally emphasises training aspects as well as employment aspects of apprenticeship	3. Low quality of workplace curriculum 4. Lack of external off-the-job training 8. Low status of apprentice training
Rigorous qualifications that meet industry demand are regularly updated	12. Lack of progression into higher qualifications

Recommended feature	Identified issues in India
Stakeholders	
All major stakeholder groups (employers, training providers, employer groups and trade unions) are involved in the development and maintenance of apprenticeship regulation and structures	1. Lack of enterprise engagement in the system 5. Limited occupational coverage 6. Limited employer and industry involvement
Simple systems for adding new occupations to the apprenticeship system operate according to specified criteria	9. Responsibilities of parties unclear 10. Need to involve more and more diverse participants
Quality systems	
Training providers	
Training providers are viewed as an integral part of the training system	2. Inappropriate requirements for in-company training
Training providers are subject to quality regimes including audits	3. Low quality of workplace curriculum 4. Lack of external off-the-job training
Content of qualifications is viewable on the internet	8. Status of apprentice training 12. Lack of progression into higher qualifications
Teaching staff of training institutions are required to meet qualification/experience requirements	
Employers	
A registration scheme for organisations offering apprenticeships, with requisite criteria. Proportionate criteria (i.e. less stringent) developed for SMEs, especially micro businesses	7. Overly strict and burdensome regulation and compliance
On the job training is subject to some form of oversight/quality assurance.	2. Inappropriate requirements for in-company training
Continuing up-skilling programs for company trainers and teachers are in place.	3. Low quality of workplace curriculum 4. Lack of external off-the-job training
Employers are able to be registered as a training provider for the off-the-job component of apprenticeships	6. Limited employer and industry involvement 8. Status of apprentice training 13. Limited progression into permanent employment
Simplification	
Legislation and administrative procedures are harmonised across jurisdictions to enhance mobility and improve understanding of systems	6. Limited employer and industry involvement 9. Responsibilities of parties unclear
Respective responsibilities of the employer, the training provider and the apprentice are clear	
Incentives	
Financial incentives exist to encourage enterprises to participate	1. Lack of enterprise engagement in the system

Recommended feature	Identified issues in India
(subject to monitoring of satisfactory performance including audits)	5. Limited occupational coverage
Additional incentives are available for employers to employ disabled or disadvantaged people as apprentices	6. Limited employer and industry involvement
Wages or stipend should not be much lower than the minimum wages	10. Need to involve more and more diverse participants
The State pays social contributions for apprentices	11. Inadequate stipend
Financial incentives for apprentices to complete their contracts and for employers who continue to employ their apprentices on completion of apprenticeship	13. Limited progression into permanent employment
Provisions for the apprentice	
A combination of on- and off-the-job learning with around 20% of time at a training provider	2. Inappropriate requirements for in-company training
A chance to mix with apprentices from other enterprises	3. Low quality of workplace curriculum
Attainment of a recognised qualification	4. Lack of external off-the-job training
A training plan within the company	8. Status of apprentice training
Opportunities to experience different workplaces if working in a limited environment	10. Need to involve more and more diverse participants
A 'case manager' to oversee progress in off- and on-the-job training	
Opportunities to switch employers for good reason	
Support for employers and apprentices	
Centrally-provided workplace curriculum and learning materials for enterprises	2. Inappropriate requirements for in-company training
Cohort management systems within or across enterprises	3. Low quality of workplace curriculum
Support for small and medium enterprises, through structured arrangements, by specified bodies	9. Responsibilities of parties unclear
Support for employers rather than punitive measures for non-compliance	13. Limited progression into permanent employment
Easily available information about the system for would be apprentices and employers	
Fall back system for apprentices whose employer can no longer afford to employ them	

This table indicates that there are some major challenges in adopting features that are considered to be good practice into the Indian system. Quite radical changes would need to be made to utilise some of these features. The remainder of the paper goes on to discuss how this might be done.

Flexible standardisation: Key principles proposed for the Indian system

For the Indian system, some key principles are now suggested. These are arrived at from consideration of the major issues identified in the analysis of the Indian system and the lessons learned in other countries.

We have coined the term 'flexible standardisation' as an overarching term for what we propose. This term is derived from the concepts of flexicurity and flexible specialisation. Flexicurity is used to describe modern economies where there is relative deregulation of labour laws underpinned by strong social security systems, and originated in Denmark. Flexible specialisation is a concept developed by Piore and Sabel in 1984 (Piore & Sabel, 1984). It describes manufacturing systems that, in contrast to mass production, maintain core systems of infrastructure and workforce that can be adapted to different products. In line with both of these concepts, flexible standardisation in an apprenticeship system would offer a set of key basic features to assure quality and equity, but with flexibility in a range of other features. It is stressed that a core set of standardised features is essential to maintain the integrity of an apprenticeship system and confidence in its outcomes.

The governance principles underlying such a system would be:

- ▶ Low barriers to entry for employers (for example, removal of requirement for inspection of premises).
- ▶ Minimal points of governmental intervention (for example, reduced responsibility by government for the system and increased use of third party organisations to grow the system, requiring governments' interaction only with third parties rather than directly with employers).
- ▶ Removal of coercion and excessive penalisation, and replacement with incentives and support (i.e. providing a 'carrot' rather than a 'stick' approach).
- ▶ Similar systems for all industry areas (i.e. avoid other countries' experiments with different systems for different industry or occupational areas).
- ▶ Removal of some aspects of regulation to a more appropriate regulatory body (eg. inspection of premises for safety removed to OH&S inspectorates, regulation of hours to be worked by young people to be removed from apprentice law and enshrined in general labour law).
- ▶ No new bureaucracy.

The core quality and equity principles for the system would be:

- ▶ Equal chance for all workers in appropriate occupations to participate.
- ▶ Formal qualifications within national qualification system awarded through apprenticeships, with content viewable on internet.
- ▶ Clear guidelines for employers about responsibilities and training required in the workplace, viewable on internet.
- ▶ System for overseeing quality of training in off-the-job training providers.
- ▶ Systems for stakeholder involvement.

A higher level, more strategic role for the government

A more flexible system would remove a number of routine activities from the government and enable the government to focus on a strategic role in the system which would be focused around outcomes rather than inputs. For example, the quota system appears to be ineffective, and compulsion could be better replaced with facilitation. Thus government could focus on:

- ▶ Engaging more employers in the system and improving the 'branding' of apprenticeships to individuals.
- ▶ Improving the standard of training through better curriculum, more highly qualified trainers, and a 'dual' approach to training throughout the apprenticeship.
- ▶ Systematically scanning the environment to add new occupations and remove old ones.
- ▶ Increasing the demand for apprenticeships by promoting greater permeability to higher level qualifications and by encouraging employers to recruit apprentice-qualified workers. Increasing the demand for apprenticeships by promoting greater permeability to higher level qualifications and by encouraging employers to recruit apprentice-qualified workers.

Possible Options for India

We now move to the possible options for the system. The options were classified, based on the analysis of the Indian system, as involving 'Major change' or 'Minor change'. It should be noted that few of these strategies stand alone; they are interconnected.

The options were discussed at a Technical Consultation in New Delhi on 26 September, 2012, with 81 participants from all relevant stakeholder groups. The event was chaired by Mr Sharda Prasad, the Director General of Employment & Training and Joint Secretary, Ministry of Labour and Employment. At the technical consultation, participants were divided into four groups for discussion of the options, with each group taking three or four related options. The options were grouped into the following four themes:

- ▶ Simplify access
- ▶ Improve training quality
- ▶ Harmonise the system
- ▶ Increase participation

Group reporters presented their findings as part of a plenary discussion.

TABLE 3: Scope of each of the four participant groups

Group No.	Themes	Possible Options	
1	Simplify access	2	Replace compulsory participation requirements with voluntary registration
		4	Reduce the regulatory burden on employers
		11	Introduce new third parties to the apprenticeship system to help manage ebbs and flows in the economy and provide more support for some groups of apprentices and employers

Group No.	Themes	Possible Options	
2	Improve training quality	3	Introduce off-the-job training throughout the period of an apprenticeship
		9	Upgrade quality and recognition of apprentice certification
		10	Improve workplace curriculum
		12	Improve skills and expertise of those delivering training
3	Harmonise the system	13	Greater involvement of stakeholders in system
		7	Simplify and harmonise the system
		8	Increase 'market currency' of apprentice qualifications
4	Increase participation	1	Cover more of the economy
		5	Provide financial incentives to participants, enterprises and training providers
		6	Introduce non-financial strategies to increase participation among more people

The options are described in full, below. They have been split into two groups: those which gained full or substantial support at the technical consultation, and those which gained less support. For some of the options, feedback from participants that provided additional insight or suggestions is given below.

Options gaining full or substantial support at the technical consultation

1. Cover more of the economy

Major change: Responsibility allocated to a body systematically and regularly to scan the environment to ensure that the list of occupations broadly reflects the structure of the economy, and to manage processes for adding new occupations by removing unnecessary ones. This could be the forthcoming newly constituted NCVT and/or strengthened Central Apprenticeship Council with inputs from designated industry bodies and/or the suggested NSDA.

Minor change: Quicker processing of applications for new occupations through a minimum service guarantee from DGET, and acceptance of proposals from any stakeholder.

Additional feedback from the technical consultation: Participants highlighted the need to prioritise certain occupations and maintain a live list. Also there was support for the formation of a national 'Apex' body under MOLE with tripartite representation, to co-ordinate related bodies and initiatives.

4. Reduce the regulatory burden on employers

Major change: Reduction of the inspection regime and replacement with a document-based registration system (preferably on-line) supplemented by an audit

regime. Harmonise apprentice entitlements with those of other employees in an enterprise/sector. Registration to be encouraged by the availability of financial incentives (see below), only to registered enterprises.

Minor change: Reduce the number of regulations with which employers must comply including the relatively severe penalty clauses. Harmonise apprentice entitlements with those of other employees in an enterprise/sector.

Additional feedback from the technical consultation: Participants suggested existing penalties should be retained.

5. Provide financial incentives to participants, enterprises and training providers

Major change:

- ▶ Change the stipend to a proportion of minimum wage for the occupation.
- ▶ Introduce financial incentives for employers – on employment, completion and retention of an apprentice, and for employing disadvantaged apprentices⁴.
- ▶ Provide added funding to training providers (ITIs and other) for updating of equipment etc., on a performance-based system.
- ▶ Ensure major government infrastructure projects budget for payment of a proportion of apprentices' wages to ensure apprentices are employed.
- ▶ Taxation concessions for employers who employ apprentices.

Minor change: Introduce financial incentives for employers – eg. on employment and completion of an apprenticeship, and for employing disadvantaged apprentices.

Additional feedback from the technical consultation: There was less support for the added funding to training providers and the tax concessions for employers. The group suggested that financial incentives for employers should be dependent on performance.

7. Simplify and harmonise the system

Major change: Introduce a single national apprenticeship system that harmonises all government activities related to apprenticeship, i.e. the schemes run separately by MOLE and MOHRD.

Minor change: Merge the Apprenticeship Training Scheme and Craftsman Training Scheme under one apprenticeship scheme that involves both on- and off-the-

4. Possible sources of funding include the NSDC, sector-specific levy systems implemented by industry, national fund established with donor support.

job training. Develop easily accessible, comprehensible, and widely disseminated information about differences among states, with special arrangements for major companies to access a national system.

Additional feedback from the technical consultation: Participants also suggested that the legislation needed to be simplified.

8. Increase 'market currency' of apprentice qualifications

Major change: Through industrial relations and licensing provisions, make the possession of an apprentice qualification mandatory to access specified jobs.

Minor change: Encourage the requirement for a qualification among employers by promotion among industry bodies and/or access to government contracts.

9. Upgrade quality and recognition of apprentice certification

Major change: Align apprentice certification with appropriate levels in the qualification system being developed so that apprentices can progress to higher level qualifications (including university qualifications) through apprenticeship pathways.

Minor change: Ensure that apprenticeships in specific trades align with NVQF/ NSQF qualifications being established by SSC (should this be SDC?) including provisions for off the job training and dual certification. Work with SSC (should this be SDC?) and industry to review apprentice qualifications to ensure appropriate and comparable skills and knowledge content among occupations, and that content is relevant and up-to-date.

Additional feedback from the technical consultation: Participants also suggested that a sandwich program (similar to that offered by IE, IETE and EMIE) with links to diploma level programmes could be considered.

10. Improve the training provided in workplaces (workplace curriculum)

Major change: Expand the Craft Instructor Training Scheme to provide professional development to employers in managing apprentices and delivering on-the-job training; institute oversight of workplace training for each apprentice by a designated member of staff at an external training provider ('case manager').

Minor change: Improve and update the content of the workplace curriculum/ competency-based learning materials and exemplar training plans available to employers.

13. Greater involvement of stakeholders in system

Major change:

- ▶ Undertake a systematic review of stakeholders in apprenticeships and their potential involvement at different levels of the system (including at the Central Apprenticeship Council and Regional Directorates of Apprenticeship Training).
- ▶ Request the Prime Minister's Council on Skills Development to direct other Ministries responsible for major schemes (e.g. MRLM, NULM, CESS Funds) to provide financial incentives for apprenticeship commencements in their respective sectors/locations.

Minor change:

- ▶ Provide funding to tripartite industry bodies for a sub-set of such activities in their respective sectors.
- ▶ Liaise with NSDC and SSC to ensure apprenticeships are considered during development of sector strategic plans.

Options attracting limited, partial or no support at the technical consultation

2. Replace compulsory participation requirements with voluntary registration

Major change: Remove the compulsory requirement for participation of eligible enterprises and enable voluntary registration and participation. Redraft eligibility criteria, particularly to allow for participation by medium and small enterprises (MSMEs).

Minor change: Retain compulsory requirements for certain enterprises but add new voluntary registration option for MSMEs that meet certain criteria.

Additional feedback from the technical consultation: There was support for the minor change relating to MSMEs, but not for the removal of compulsory requirement.

3. Introduce off-the-job training throughout the period of an apprenticeship

Major change: Introduce mandated off-the-job training of approximately 20% of time for all apprentices to attend a training provider, for theoretical and practical training. Allow public and private training providers to deliver off-the-job training component.

Minor change: Allow employers to outsource the in-house off-the-job training ('basic training') to training providers. Allow MES graduates to obtain credit for their courses against the in-company basic training.

Additional feedback from the technical consultation: Participants stated that off-the-job training at an external training provider was already an option for apprenticeships but that it needed to be more widely known. The group did not support the link between MES courses and apprenticeships because of their short duration. However it was suggested that if the curriculum was improved (perhaps SSCs could take more responsibility for apprentice curriculum) then better links could be created.

6. Introduce non-financial strategies to increase participation among more people

Major change:

- ▶ Open apprenticeships to people of all ages above 14 years (in non-hazardous trades) and without minimum educational qualifications (with language, literacy and numeracy support).
- ▶ Adapt the Australian 'Enterprise Registered Training Organisation' system to India, i.e. ability of employers to be (by choice) the off-the-job training provider; publicity campaign, accessible web presence, and school careers education. Improved information about occupations in demand through better linking of apprenticeship information to labour market statistics.

Minor change: Undertake a publicity campaign, develop an accessible web presence, and highlight apprenticeships in school careers education.

Additional feedback from the technical consultation: Participants supported opening apprenticeships to people of all ages above 14 years but did not support removing the education requirements. They did not support the Enterprise RTO model.

11. Introduce new third parties to the apprenticeship system to help manage ebbs and flows in the economy and provide more support for some groups of apprentices and employers

Major change: Introduce third party employers (similar to Group Training Organisations in Australia) acting as labour hire companies, to employ apprentices and 'lease' them to employers during the period of the apprenticeship, to liaise among enterprises (particularly SMEs) to ensure apprentices receive all-round training, to support employers to implement apprenticeships and to provide a source of expert information to enterprises. Such organisations would receive a proportion of government funding.

Minor change: Provide funding to tripartite industry bodies for a sub-set of such activities in their respective sectors. Implement trial demonstration projects involving third parties.

Additional feedback from the technical consultation: Participants supported the minor change, but not for inspection.

12. Improve skills and expertise of those delivering training

Major change:

- ▶ Introduce higher-level teaching qualifications and industry currency requirements for teachers at training providers.
- ▶ Introduce voluntary 'meister'-type qualification for industry trainers.
- ▶ Introduce mandatory upgraded instructor module for all industry trainers, focusing on learning through work.

Minor change: Make available an upgraded and voluntary instructor module for all industry trainers, focusing on learning through work.

Additional feedback from the technical consultation: Participants argued that there is already a shortage of instructors and that any mandatory increase in requirements would exacerbate this, although the minor change was supported.

Two Issues: Expansion of the System, and Informal Apprenticeships

What might be the consequences of a rapid expansion of the Indian system?

The intent of the options above is to expand the Indian apprenticeship system. The following section provides some more detailed information about possible strategies and the risks of rapid expansion. Table 4 shows selected successful expansion strategies from other countries.

TABLE 4: Expansion strategies and their relationship to issues in the Indian system

Expansion strategies	Identified issues in the Indian system
Promotion of the brand of apprenticeship by governments, particularly in countries where the status of apprenticeships is low	8. Status of apprentice training
Introduction of third party employers (eg. Group Training Organisations in Australia)	10. Need to involve more and more diverse participants
Education of secondary school and other careers staff about apprenticeships	12. Lack of progression into higher qualifications
Pathways to higher level qualifications so that people do not feel the choice is final	13. Limited progression into permanent employment
Encouragement through industrial relations or other systems for apprentice qualifications to form the basis of recruitment to jobs and/or be rewarded with higher pay	

Risks of rapid expansion

As mentioned in the introduction, some countries have chosen to modernise their apprenticeship system by rapid expansion. They have expanded the number of occupations for which apprenticeships are available and have opened up apprenticeship to broader groups of people. They have provided incentives or funding to employers, training providers, and/or apprentices, and have funded third parties to help grow the system. The Model Apprenticeship Framework described in

the international comparative report (Smith, Brennan Kemmis et al, 2013) identified a number of potential issues associated with rapid expansion of an apprenticeship system. These include the following:

- ▶ A rapid increase can lead to quality problems.
- ▶ Employers may be persuaded to participate without being fully aware of their responsibilities.
- ▶ Completion rates may be low unless quality is properly managed.
- ▶ Rapid establishment in new occupational areas without a tradition of formal training can lead to the risk of low-quality qualifications and workplace curriculum which can be hard to shift later – leading either to persistent negative perceptions of the occupation and the apprenticeship, or to rapid and confusing policy shifts to address the problem.
- ▶ The establishment of ‘differently-badged’ systems should be avoided, as it can lead to the newer systems being viewed as inferior, and such perceptions are difficult to shift subsequently (examples: traineeships in Australia, ‘modern apprenticeships’ in England; or the non-employment based ‘learnerships’ in South Africa).
- ▶ Extensive stakeholder involvement is vital.

It would be important to take these factors and learning points into account in any expansion program. It is certain that additional factors specific to the Indian context would apply.

Another major issue confronting countries when working with their apprenticeship systems is to recognise that apprenticeship systems almost always perform both a labour market and a skill formation function. The most important labour market function is generally to move young people from the schooling system into the formal labour market. Therefore any changes in the Indian system must be viewed through both ‘lenses’ to ensure that both functions are still addressed.

Finally, the issue of cost needs to be considered. The expansion of, and changes to, apprentice systems can be costly, both to the government and to employers. Other countries have used funding mechanisms such as sector-specific schemes which impose levies on employers to assist apprenticeship development. Alternatively, funds could be made available from relevant schemes in other Ministries. There is also the possibility that a proportion of expansion costs can be offset by other savings associated with apprenticeship reform; for example, a reduction in the inspection and registration requirements would release resources for other activities.

The informal apprenticeship system: ‘problem’ or opportunity?

In India, as in many other countries, there is a tradition of informal apprenticeship. The arrangements for such apprenticeships take place outside regulatory

frameworks. In the current study, Turkey, Egypt and South Africa have provided examples. In other studies, different models to strengthen informal apprenticeship options have been documented in Africa, Bangladesh and Indonesia. In India, there is a concern to spread the benefits of formal apprenticeships to a broader range of companies and apprentices. However, there are large barriers to entry into the system, and as discussed above, even large well-established companies find the current regulatory regime too burdensome. Moreover, it is doubtful whether the current administrative systems could cope with adding more employers, even under a voluntary system, to the list of registered employers.

The proposed options described above may reduce the regulatory burden to a point at which the system would cope with much greater numbers. This would especially be the case if industry (employers and workers) were given greater responsibilities to promote, lead and manage the apprenticeship system in their respective sectors. There is, however, a question about how far it is helpful to attempt to capture informal training under the formal apprenticeship system. It is suggested that as the formal system expands, it will become better understood, and more employers may choose to enter; also more people would have the opportunity and the necessary information to be able to apply for positions. Broadening of the occupational areas would mean the spread of the system into rural and regional areas. Moreover, with a formal qualifications framework, apprentices that are training informally might have the chance to apply for assessment against a qualification. It would be hoped that forthcoming child labour legislation would prevent exploitation of very young people in the guise of informal apprenticeships. Thus, it is suggested that reform of the formal apprenticeship system could naturally lead to migration from the informal to the formal system.

In the other countries involved in the project, formal regulation of the informal system is not regarded as a first-order priority. However, the G20 policy paper on apprenticeships prepared by the ILO (2012) does recommend the strengthening and gradual upgrading of informal apprenticeship systems where the informal economy has a large share of economic activity, as is the case in India.

None of these points should prevent the availability of particular features of the formal system (such as publicly available curriculum) being made available to the informal apprenticeship sector, or indeed to other employers and employees. The use of competency-based log books and standardisation of informal apprenticeships through a Code of Practice signed by master craftsmen and apprentices represent a first step towards formalising informal apprenticeships and improving the quality and relevance of skills training to the vast majority of workers.

Finally, it should be stressed that the large informal apprenticeship system represents a large section of the economy where the general concept of apprenticeship is well-understood by employers, workers and families, and thus a large potential pool of employers and would-be apprentices for a reformed formal system.

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Appendix 1: Analysis of selected Documents on the Indian Apprenticeship System

	Report 1	Report 2	Report 3	Report 4
	Ministry of Labour and Employment. <i>National Policy on Skill Development</i> (2009). Government of India: New Delhi.	Planning Commission Sub-Committee on re-modelling India's apprenticeship Regime (2009). <i>Report and Recommendations</i> : New Delhi.	Akhilesh K. B. (2010). <i>A Study on the Apprenticeship Law in India</i> . Bangalore, India: Department of Management Studies.	Confederation of Indian Industries (CII) policy advocacy on the Apprenticeship Act, for Ministry of Labour and Employment consultations (2011).
Aims of report/document	<p>The scope of the report was to outline future skills development policy, in line with national objectives, in the following areas:</p> <ul style="list-style-type: none"> ■ Institution-based skill development ■ Learning initiatives of sectoral skill development (across ministry lines) ■ Formal and informal apprenticeships and other enterprise-delivered training ■ Training for self-employment ■ Adult and lifelong learning and retraining ■ Non-formal training ■ Flexible delivery modes. <p>The focus was on skill development as a whole, not only on apprenticeships.</p>	<p>To identify why employers are averse to taking apprentices.</p> <p>Examine adaptability of the German Dual system to India.</p> <p>Identify why state governments do not 'accord the necessary sanctions' for taking on apprentices.</p> <p>Identify why apprenticeships are not sufficiently attractive to applicants.</p> <p>Suggest methods for overcoming the problems.</p> <p>Suggest amendments to apprenticeship legislation.</p>	<p>To undertake a comprehensive study on the Apprentices Act 1961 and other legislation and regulations that impact on apprenticeship and skill development for youth.</p> <p>Analyse the extent to which laws and regulations have facilitated the promotion of apprenticeship training in the public and private sector. Identify/analyse the different methods of apprenticeships/training for employment, adopted by private sector establishments and their effectiveness for skill development and youth employability.</p> <p>Make suggestions for amendments/revision to legislation to promote engagement of apprentices/training for employment by the private sector, and the effects on skill development and youth employability.</p> <p>Suggest a credible and practical process of skills certification for those trained by the private sector.</p>	<p>To provide recommendations for reform of the Act and to report on industry consultation.</p>

	Report 1	Report 2	Report 3	Report 4
Problem areas identified	<p>The report did not identify problem areas as such, but these are implicit in the vision as outlined:</p> <ul style="list-style-type: none"> ■ Need to create 500 million skilled workers by 2022 ■ Under-participation by women, rural and regional people, minorities, people with disabilities, and the economically challenged ■ Child labour and inadequate provision for early school-leavers ■ Lack of dynamism in the supply of skills ■ Unequal playing field between public and private providers of training ■ Lack of co-ordination among different ministries and other stakeholders. In particular, lack of involvement in ministries responsible for areas of the economy with the skill system ■ Aversion to innovation as opposed to incremental development ■ Lack of openness to effective use of public infrastructure. 	<p>1. Administrative Issues</p> <ul style="list-style-type: none"> ■ Fractured implementation structure and lack of single window for the private sector for the appointment of trade apprentices: <ul style="list-style-type: none"> – Addition of a new trade is a long-winded process – Records and returns required of employer are very onerous. <p>2. Regulatory Issues</p> <ul style="list-style-type: none"> ■ Unrealistic levels of stipend ■ Ratio of apprentices to workers ■ Period of training for some occupations is too long ■ Penal provisions are too heavy ■ Apprentices cannot be terminated. <p>3. Viability Issues</p> <ul style="list-style-type: none"> ■ Provision of basic training and shop floor training facilities by the employer is uneven and sometimes expensive ■ Total cost of training is high ■ Outdated curriculums for the off-the-job training. <p>4. Marketing Issues</p> <ul style="list-style-type: none"> ■ No central matching of employers and apprentices ■ Low levels of awareness of apprenticeships. 	<p>Unrealistic levels of stipend.</p> <p>Lack of apprenticeship training centres.</p> <p>Lack of proper shop floor training and facilities.</p> <p>Apprentices being used as casual labour.</p> <p>Overtime work from apprentices.</p> <p>Lack of proper obligations for apprentices.</p> <p>Applicability/ implementation of Apprentices Act in emerging sectors.</p> <p>Involvement of schools/ colleges for enrolment in apprenticeship programs.</p> <p>Outdated training curriculum.</p> <p>Imbalance in ratio of apprentices to workers</p> <p>Marketing issues – awareness of apprenticeship programs.</p> <p>Gender disparity in apprenticeship training programs.</p>	<p>Government over- regulation of the apprenticeship system, the inadequate number of apprenticeships in the service sector.</p> <p>The penalties and possible imprisonment for non-compliance.</p> <p>The importance of on-the-job training.</p> <p>The admission of new designated trades.</p> <p>The duration of apprenticeships.</p> <p>Stipend payments.</p>
Recommendations	<p>Specifically with relation to apprenticeships:</p> <ul style="list-style-type: none"> ■ Expand apprenticeship system to 1 million participants. 	<p>1. Administrative Issues</p> <ul style="list-style-type: none"> ■ Simplify workflow for apprenticeship permission/licensing of employers ■ Simplify workflow for inclusion of new trades. 	<p>Recommendations</p> <p>List of proposed amendments to the Apprentices Act of 1961:</p> <ul style="list-style-type: none"> ■ Increase the coverage of the Act. 	<p>These recommendations included:</p> <ul style="list-style-type: none"> ■ Each company should deploy not more than 10% of its workforce as apprentices.

	Report 1	Report 2	Report 3	Report 4
	<ul style="list-style-type: none"> Revise Apprenticeships Act 1961 to meet this target Improve access for women and disadvantaged groups. <p>For the informal apprenticeship sector:</p> <ul style="list-style-type: none"> Social protection for apprentices, encouragement of 'dual type' apprenticeships in informal sector Upgrade skills of trainers Develop modern apprenticeship programs for traditional skills. <p>More general recommendations applicable to apprenticeship:</p> <ul style="list-style-type: none"> Implement quality assurance including accreditation of training providers Improve quality of physical and ICT infrastructure Improve quality of trainers through a variety of methods Implement national vocational qualifications framework. 	<ul style="list-style-type: none"> Simplify on-going compliance (returns and records) and allow e-filing Remove "No Objection certificate" requirement for out-of-region candidates. <p>2. Regulatory Issues</p> <ul style="list-style-type: none"> Increase stipend levels Equate stipend reimbursement regime within the Ministry for Human Resource Development Allow capacity flexibility for ratio fixing from 1:7 but a maximum of 1:1 Make all eligible for the graduate apprenticeship program Reduce minimum course duration to 3 months Review penal jail provision. <p>3. Viability Issues</p> <ul style="list-style-type: none"> Allow outsourcing of classroom training instead of the current in-house basic training requirement. <p>4. Marketing Issues</p> <ul style="list-style-type: none"> Set up Information and Matching Infrastructure for Employers; Web site, Call Centre and reach out to industry associations/schools/colleges Introduce recognition program for employers with the largest numbers of apprentices Allow 15% income tax deduction of apprentice stipend paid by employers Revamp outdated curriculum: Converge with MES. <p>Create a budget for branding the Apprenticeship Scheme.</p>	<ul style="list-style-type: none"> Broaden the scope of Designated Trades Have a uniform approval authority Remove geographical boundaries Introduce reservation of places for women Remove legal barriers to equal participation for apprentices Incorporate flexibility in apprentice engagement Introduce flexibility in contract novation Standardise the apprenticeship training period Apprenticeship empowerment and flexibility in termination Have a standard ratio of apprentices to employees Creation of a new fund to help promote apprenticeship New and more flexible compliance mechanism for employers Provision of governmental assistance to willing and able employers Better work conditions for apprentices Create an authorised certification mechanism and empower employers. 	<ul style="list-style-type: none"> At trade level, at least 5% of the workforce should be apprentices More training of apprentices in the service sector – aim at 2.5% of the workforce Abolish offences and penalties (for employers) clause Remove power of inspection Multi-state companies to be able to deal either with national or state governments, as they wish Allow companies and employers to provide the basic on-the-job training on the shop floor (up to 75%) Employers should be allowed to terminate apprentices in specific circumstances Mechanisms that allow companies to add new trades to the designated apprentice lists Apprentices should be able to receive training in any company/unit in India irrespective of domicile or location Ability for companies to outsource the training of apprentices. Rules for apprentices should be in line with those which apply to ordinary employees The duration of the apprenticeship should be rationalised Stipend should be linked to the minimum wage structure and reimbursement of 50% should be extended from MHRD to MOLE. Stipend should not be mandatory for short-term apprentices Creation of a web based portal where employers publish their apprentice requirements and record their employment of apprentices. Apprentices to be encouraged to apply online.



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