CHAPTER 3
REVIEW OF LITERATURE

The researcher has conducted meetings with several Government authorities in Maharashtra Education Department and Ministry for Human Resource Development. The findings/literature derived from these meetings is presented in this chapter.

The integration of Vocational Education and Vocational Training is critical for the success of the VET model. In India, the Vocational Education, Training and Skill Development sector is fragmented, unregulated and under-developed both at National and State level. There is no single regulatory body for this sector in India today. While Vocational Education is under the ambit of Ministry of Human Resource Development (MHRD), the Industrial Training (ITIs) units are under Ministry of Labour and Employment (MoLE) at the Center. In Maharashtra, Vocational Education, Technical Education and management of Industrial Training Institutes is largely governed by the Dept. of Higher & Technical Education. There is no uniform policy governing Vocational Education and Training system in the State of Maharashtra. The quality of Vocational Education imparted by a number of VTP’s is also questionable as no quality standards and measures are in place. The Govt. of Maharashtra also has several bodies offering varied vocational education and training courses without any uniformity or standards. The Maharashtra State Board for Vocational Education (MSBVE), the Maharashtra State Board for Technical Education (MSBTE looking after Polytechnic), the Department of Vocational Education (offering HSC-Voc), the Department of Vocational Training (looking after ITIs, ITCs) and other Vocational Providers are all offering vocational courses/industrial training courses/diploma programs at various levels. However there is no regulation or single statutory body to control, create policies or guidelines for standardization. This has lead to a duplication of effort with a large number of agencies offering similar types of courses with no standardization causing confusion amongst the student community as well as the industry.

During the course of past 3 years the researcher has not found many objective and comprehensive reports about the governance, administration and regulation of the Vocational Education, Training and Skill Development sector. Reports are available
about skill development in India and abroad and also about Government initiatives, however, the researcher could gather information, data about regulatory, administrative and governance aspects only after conducting detailed meetings with concerned officials at the State and Central Departments.

Vocational Education, Training and Skill Development courses are available in Maharashtra at secondary, higher secondary (school) and diploma level (including community colleges) in a variety of forms. This chapter gives details of the present Indian education system and the lack of vertical mobility for vocational students. The international vocational education scenario is also presented for countries such as Australia, Germany, Korea, Sri Lanka, UK and China who have well developed VET systems. The trends related to labour market show that there are serious concerns from the industry as regards the quality of VET and at the same time the demand for skilled resources is increasing. The percentage of Indian workforce formally trained in some vocation is also extremely low as compared to other Asian countries. Majority of India’s workforce is in the unorganized sector. Their problems and needs are different. The Government at the central as well as state level has not been able to effectively roll out schemes for the unorganized sector. These areas are also covered in the subsequent pages.

This chapter also presents the existing scenario, problems, challenges and reasons related to Vocational Education at SSC, HSC and Diploma levels in Maharashtra and gives details of some schemes which have been successful.

3.1 Vocational Education & Training Scenario – Indian and International Perspective

Vocational education and training is an important component for socio-economic growth of any country. The countries that have adapted to the changing global scenario by upgrading the VET sector to provide higher and specialized skills are better placed in the world of work. India can also gain from the international experience by contextualizing the learning in the Indian context. The present vocational scenario in India and some of the successful international VET systems are outlined in the following pages.

3.2 Present Scenario of Vocational Education in India

The structure of current education system can be described as below:

(Source - World Bank Report 2006)

In India, skill acquisition takes place through two basic structural streams – a small formal one and a large informal one.

Status of Vocational Training received: Only about 2.5 million vocational training seats are available in the India whereas 12.8 million persons enter the labour market each year (Meeting of State Education Ministers on NVEQF 28th Jan, 2011 – Report from MHRD). Similarly, the World Bank Report, 2006 shows that among persons of age 15-29 only about 2 per cent reported to have received formal vocational training.
and another 8 per cent reported to have received non-formal vocational training. The proportion of persons (15-29 years of age) who received formal vocational training was the highest among the unemployed. The proportion was around 3 per cent for the employed, 11 percent for the unemployed and 2 per cent for persons not in the labour force. The activity of persons receiving vocational education is as shown below:

Comparison with other Countries: *World Bank Report 2006* suggests that less than one per cent of students who had entered Grade 1 over the last decade or so would have eventually participated in vocational education. In comparison the status in various other countries is as shown below:

Proportion of Students in Vocational Education at +2 level in India as compared to other countries:

<table>
<thead>
<tr>
<th>Country</th>
<th>Secondary enrolment ratio</th>
<th>Number of students (thousands)</th>
<th>Vocational-technical share (per cent of total secondary enrolments)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>88</td>
<td>6277</td>
<td>60</td>
</tr>
<tr>
<td>China</td>
<td>52</td>
<td>15300</td>
<td>55</td>
</tr>
<tr>
<td>Chile</td>
<td>70</td>
<td>652</td>
<td>40</td>
</tr>
<tr>
<td>Indonesia</td>
<td>43</td>
<td>4109</td>
<td>33</td>
</tr>
<tr>
<td>Korea</td>
<td>93</td>
<td>2060</td>
<td>31</td>
</tr>
<tr>
<td>Mexico</td>
<td>58</td>
<td>-</td>
<td>12</td>
</tr>
<tr>
<td>Malaysia</td>
<td>59</td>
<td>533</td>
<td>11</td>
</tr>
<tr>
<td>South Africa</td>
<td>77</td>
<td>-</td>
<td>1</td>
</tr>
</tbody>
</table>

*Source: World Bank, 2006*
<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage of Students at +2 level in vocational education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>Above 65 %</td>
</tr>
<tr>
<td>Japan</td>
<td>40 %</td>
</tr>
<tr>
<td>India</td>
<td>4.8 %</td>
</tr>
</tbody>
</table>

(Source: Meeting of State Education Ministers on NVEQF 28th Jan, 2011- Report from MHRD)

The above table indicates the low percentage of vocationally trained students at +2 levels in spite of the existing schemes in place.

3.3 Vocational Education & Training Scenario – International Perspective

- **Australia**

Australia has a well defined National Qualification Framework. Australia has developed ‘foundation’ vocational skills courses offered through VET schools and standardized by the Australian National Training Authority, the single tripartite body responsible for training standards. *(Australia VET Bill 2010, Australian National Training Authority Act 1992; World Bank Report 2006)*

Level-I Certificates from the VET system are regarded as educationally equivalent to Senior Certificates from secondary schools, and Diplomas and Advanced Diplomas may be issued by the VET system or by higher education institutes. Depending on the courses of study, credits are allowed to be accumulated as participants choose to move between the three sectors. Some VET certificates may now be issued with little or no formal training, for example, to enterprise workers who have obtained their skills over a number of years on the job.

![Diagram](Source: Abrahart (2009), Clarke (2005))
China

In recent decades, China's vocational and technical education has produced a large quantity of low-level technical workers, low-level managerial professionals, and skilled workers. Vocational education in China is primarily associated with two or three-year institutions, and specialized training institutions closely linked to local industry and business needs. Postsecondary education in China is divided into four categories: formal four-year higher education institutions (Benke in Chinese), three-year or two-year vocational education institutions/Universities (Zhuanke), private institutions (Minban), and adult universities (Yeyu). (Development and reforming trends for Chinese Vocational and Technical Education and Training by Che Weimin, Chinese Service Center for Scholarly exchange, Dec 2009) The framework of education system in China is as follows:

The Vocational Qualification Framework in China has divided into 5 levels (unlike the British system of 9 levels). Schematic presentation of NVQF is as shown:-

![Framework of China's education system](image-url)
The Korean vocational education system has evolved considerably since it was set up in the early 1960s. While initially the emphasis was on churning out semi-skilled workers for the industry, the current focus is on equipping students with basic knowledge and skills and providing them with a foundation which will enable them to learn further. (Pillay, 2005, World Bank Report 2006) Some key features of the system include:

a) Delaying streaming into vocational education till high school (for three years after grade 11). All students undertake a common national curriculum in the first year of high school, following which they choose to enter the general or vocational stream for the remaining two years – however the vocational stream includes extensive elements of general education;

b) Ensuring the vocational stream is not dead-end – by allowing vocational students to proceed to higher education;

c) Financing vocational education through government and private resources – about 40 percent of financing for vocational education comes through entrance and tuition fees;

d) Linking up vocational schools with specific industries to ensure that curriculum and outputs match industry needs.
German Vocational Education System

The structure of education system is as illustrated:

In Germany, vocational education is provided at secondary level (age group 15 to 19 years) through dual VET system and full time vocational schools. (*Vocational Training Act, Germany; Accreditation and Quality Assurance in VET*)

Vocational Universities in Germany called as Universities of Applied Sciences offer Bachelors and Masters Degree Programs in Vocational Streams. There are a total of 160 Universities of Applied Sciences in Germany. The Universities of Applied Sciences offer practical university-level education and training focusing more heavily on teaching rather than research and by offering degrees tailored to specific jobs and industries. Courses at these Universities are in great demand as they increase the status of vocational training by providing opportunity to vocational students to pursue University level courses. In fact today in Germany Universities of Applied Sciences currently train nearly all of Germany’s social workers / social educators, two-thirds of all of its engineers and about half of its economists and computer scientists. (*Universities of Applied Sciences, Federal Ministry of Education and Research (BMBF), August 2003*)
In Sri Lanka, there is a National Policy Framework on higher education and vocational and technical education. (The vision for Sri Lanks’s Tertiary and Vocational education, Dr. T. A. Piyasari, Director General, TVEC; Qualification Frameworks: Implementation and impact background case study on Sri Lanka, G. A. K. Gajaweera, Skills and employability department, ILO; National Policy Framework on Higher Education and Technical and Vocational Education, National Education Commission, Sri Lanka, 2009)
In United Kingdom, the National Qualifications Framework (NQF) lays down the levels against which a qualification across various learning sectors can be recognized. The NQF framework with examples is illustrated in subsequent slides. *(Qualification and Curriculum Authority London)*
3.4 PRESENT SCENARIO OF VOCATIONAL EDUCATION IN MAHARASHTRA

A. Secondary School Level (SSC)

The Kothari Commission recommended diverting 20% of 8th std + students and 50% 10th std + students predominantly in the vocational education. The Centrally sponsored scheme of vocationalization of secondary education was launched in the year 1998. The scheme was implemented through States, Union Territories and NGOs / other agencies in the formal and non formal sector respectively. The scheme envisaged selection of vocational courses on basis of assessment of manpower needs. The main objective of the scheme as spelt out in the National Policy of Education, 1986, were to provide diversification of educational opportunities, so as to enhance individual employability, reduce the mismatch between demand and supply of skilled manpower and to provide an alternative to those pursuing higher education. Since inception of this scheme 9619 schools across India, with about 21,000 sections have been created, with an intake capacity of about 10.3 lakh students. This scheme was implemented in all States but without uniformity or success. The objective of introducing vocational education at secondary school level was to provide pre-vocational training to the students which would help to orient them towards the world of work. In many States the schools associated the local School Board implemented only a handful of vocational subjects at the secondary level, that too, as an optional subject. Further, there was no incentive or weightage given for these vocational subjects in the final 10th grade mark sheets. As a result, the scheme failed to gain popularity as a viable alternative at the secondary level and did not meet the objective with which it was laid out.

The present secondary school structure for schools affiliated to the Maharashtra State School Board consists of 9th & 10th grades. Students get an SSC certificate upon passing the 10th grade examination which is conducted by the Maharashtra State School Board.

Approximately 36,617 students are enrolled in vocational subjects at 9th grade in 2010 because pre-vocational education does not form a compulsory component of school education at 9th and 10th level.
The SSC scheme implemented at the secondary level in these schools is as under:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Subject</th>
<th>Max. Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Language I</td>
<td>100</td>
</tr>
<tr>
<td>2.</td>
<td>Language II</td>
<td>100</td>
</tr>
<tr>
<td>3.</td>
<td>Language III</td>
<td>100</td>
</tr>
<tr>
<td>4.</td>
<td>Mathematics</td>
<td>150</td>
</tr>
<tr>
<td>5.</td>
<td>Social Science</td>
<td>100</td>
</tr>
<tr>
<td>6.</td>
<td>Science</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>650</strong></td>
</tr>
</tbody>
</table>

Besides the above mentioned subjects, the students also study Environmental Sciences and Physical education.

Students are also given optional vocational subjects at the 9th & 10th grade, without any weightage in the final mark sheets. However, only the grade obtained for such optional vocational subjects is recorded on the final mark sheets.

Vocational subjects presently offered to secondary school students under this scheme are:

- V1 – Introduction to basic rural technology
- V2 – Elements of mechanical technology
- V3 – Elements of Electrical and Electronic technology

In addition to above, students also have option of taking vocational subjects instead of Work Experience as part of their SSC curriculum.

The Maharashtra State Board of Secondary and Higher Secondary Education plans to expand the vocational subjects to provide further opportunities to students.

**Benefits of existing SSC scheme**

The following benefits are given to students opting for Vocational subjects at SSC level:

1. 40% reservation in bifocal stream at 10+2.
2. 25% reservation in it is
3. 15% reservation in Polytechnics
4. Students can obtain certificates from MSBVE by directly appearing for the examination for corresponding MSBVE course.

Despite, the following advantages, there is only 4.3% enrollment in vocational subjects of the total students admitted in 8th grade. The reason for poor enrollments is given in the next section.

- **Problems of above SSC scheme in State of Maharashtra**
  
  1. Since these vocational subjects are optional, students who do not have aptitude for academic subjects cannot pursue these subjects as a career stream.
  
  2. Further, less emphasis is given by schools to motivate students to opt for such vocational subjects. Even though some of the schools desire to offer vocational courses, these schools do not have adequate infrastructure and trained staff to undertake the same.
  
  3. Besides since these vocational subjects are not given weightage in the final marksheet, students do not feel motivated to opt for them.
  
  4. Time period required for these courses is 20% of the total workload which is over and above the student’s regular coursework and requires the students to undertake additional practical work which is not given any marks. This further discourages students to opt for vocational courses.
  
  5. The type of vocational subjects offered is very limited. At present only technical vocational subjects as mentioned above are offered.

Due to the above problems vocationalization at school level has not been successful. Besides students do not see a clear vertical mobility in the vocational stream from school to graduate level. Employability after completing the vocational subjects is also poor due to which students do not opt for them at the secondary school level.

**B. Higher Secondary Education (HSC)**

As per the National Education Policy of 1986, based on the recommendations of Kothari Commission, the Govt. of India introduced +2 level i.e. 11th & 12th (HSC) Vocational stream in 1988-89. This stream has been implemented by almost all States initially. The objectives of this stream were to create an alternative system of education for students at the Higher Secondary level and to
divert the flow of students from conventional higher education to vocational education thereby reducing the pressure on conventional universities. The Government also envisaged that a large pool of employable youth of the age group between 16-18 years would be generated through this alternative stream. There are about 1.6 crore children at the +2 level out of which about 25% (i.e. 40 lakh students) diversion into vocational stream is envisaged. According to the evaluation conducted by Operations Research Group, 1996, the proportionate share of vocational students vis-à-vis total enrollment at higher secondary stage was 4.8 % and 28 % of the vocational pass outs were employed or self employed. In several States 2 year courses or Diplomas are offered at 10+2 level. It is apparent that the vocational education courses available at higher secondary level have been unable to attract a large student population as compared to the conventional education courses due to various reasons.

In Maharashtra State a total of about 150 vocational courses are offered at +2 level in major vocational areas of Agriculture, Business and Commerce, Engineering and Technology, Health and Paramedical, Home Science and Humanities, Science and Education. The MSBVE also offers some courses at 10+2 level.

Presently in Maharashtra, approx 1444 senior schools are running 150 vocational courses with total intake capacity of 88020. However, approx 59,854 students appeared for HSC (Voc) examination in 2011. (Data provided by Maharashtra Higher & Secondary School Examination Board)

Similar to the HSC (Vocational) scheme, the Government of Maharashtra also introduced BIFOCAL scheme at +2 level in 1977-78.

The objectives of this scheme are providing opportunities of employment / self-employment for students at + 2 level and also an opportunity to pursue higher education. This scheme is very popular in Maharashtra and has gained acceptability amongst all stakeholders.
HSC (Vocational) Scheme

The present HSC (Vocational) scheme is given as under:-

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Subject</th>
<th>Teaching Period/Week</th>
<th>Examination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Theory</td>
<td>Practical/Tutorial</td>
</tr>
<tr>
<td>1.</td>
<td>English</td>
<td>5</td>
<td>--</td>
</tr>
<tr>
<td>2.</td>
<td>Second Language</td>
<td>5</td>
<td>--</td>
</tr>
<tr>
<td>3.</td>
<td>GFC</td>
<td>5</td>
<td>--</td>
</tr>
<tr>
<td>4.</td>
<td>Vocational Subject I</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>5.</td>
<td>Vocational Subject II</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>6.</td>
<td>Vocational Subject III</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

**Benefits of HSC Vocational Scheme**

1. This scheme is offered to students of Maharashtra at a nominal fee. As such it has created an affordable education system.
2. This scheme is supported by Vocational (Technician) Apprenticeship Training. This enables the students to get exposed to world of work and also earn a stipend in the process.
3. The students completing HSC Vocational in technical stream get admission into 2nd year of Polytechnic Diploma in the respective branch.
4. The students completing HSC Vocational also get admission into 1st year of undergraduate / Bachelors of Arts and Commerce programs in some of the Universities.
5. Some banks also give priority to HSC Vocational students while granting loan for start-up business proposals.

**Problems of HSC Vocational Scheme**

The lack of vertical and lateral mobility has resulted in a decline in the popularity of HSC Vocational courses amongst the student population. In many States across India, this scheme has been completely discontinued. At present only 2% of total student
population at the 10+2 level are opting for vocational education at national level against the 25% envisaged by the Kothari Commission.

In Maharashtra, the scene is promising where the enrollment is 6.8% of the total student population at the 10+2 level [Report – National Workshop on Equivalence, Vertical Mobility of vocational courses at 10+2 level & Placement prospects of vocational pass-outs, 13th May 2010]. Some of the other limitations of the HSC (Vocational) Scheme are as under:-

1. Presently, only HSC (Vocational) students of technical stream get limited entry into 2nd year of Polytechnic Diploma. However, other stream students do not have this option.
2. There is a lack of trained vocational teachers at +2 vocational level. There is no institute dedicated to teachers training and resource development.
3. Recruitment rules unchanged to accommodate vocational students.
4. Lack of establishment of a state-level board to design vocational curriculum and create specialized learning material for such students.
5. Lack of equivalence in the relevant scheme with conventional universities/colleges to facilitate movement from vocational to academic sector and vice-versa. Not all Universities provide vertical mobility into bachelors programs for HSC (Vocational) students. Presently entry is limited only to B.A/B.Com/BBA. For example - Students pursuing HSC (Vocational) in Agriculture stream are not given admission in B.Sc Agriculture.
6. Limited numbers of vocational streams are offered at HSC (Vocational). The scheme was introduced in six streams covering 30 courses in 1986. Since then, no new courses have been introduced under this scheme.
7. The curriculum of HSC (vocational) is rigid. It is neither modular nor competency based.
8. There is a lack of industrial linkages at HSC (vocational) level. The HSC (vocational) students are not market ready and hence do not get readily employed.
9. HSC (vocational) students lack general academic skills like problem solving, numeracy, analytical skills, computer literacy, team work, basic communication skills, leadership etc.
10. HSC Vocational is not considered equivalent to ITI and Polytechnic courses by industries for employment purposes.
11. HSC Vocational students get admission into 2nd year of Polytechnic Diploma. Thus there is a loss of one academic year.

12. HSC (voc) students are not eligible to apply for all applicable/relevant entrance tests. For example: HSC Vocational students are not allowed to appear for Engineering and Medical entrance exams in Maharashtra.

13. Apprentice Act 1956 has been amended in 1986 for vocational students as Vocational technician apprenticeship Act. However, unorganized implementation of the Act has resulted in depriving the HSC students from obtaining hands on industrial experience.

14. No financial assistance has been provided to vocational education institutes since 1991, the scheme was handed over by Central Govt. to State Govt. This has led to ill-equipped labs and workshops for training purposes. Some States have discontinued this Scheme due to lack of funding from the Center.

15. In spite of the introduction and subsequent expansion of vocational education at both SSC and HSC levels, the Government has failed to create any separate infrastructure/organization/ bodies for preparation of books, curricula, quality assessment, technology development, teachers training and other administrative setup as is available for general school education such as SCERT, Bal Bharati, Bal Chitravani, Student Guidance Cells etc.

16. There is a lack of industrial linkages at HSC (vocational) level. The HSC (vocational) students are not market ready and hence do not get readily employed.

C. BIFOCAL SCHEME

The Bifocal stream which was introduced in 1977-78 by the Govt. of Maharashtra is offered through 1575 Vocational Jr Colleges, including 49 Govt. colleges, 129 aided non-govt. colleges and 1397 non-aided private institutions. The intake capacity of these colleges is 1, 65,350. This scheme is popular with students in the technical stream as it gives option of one bifocal subject (200 marks) in lieu of two other subjects (one language, biology). Students prefer these bifocal subjects instead of the more theoretical subjects. It is apparent that students look at the BIFOCAL stream only to get additional marks in the HSC examination, with the objective of pursuing conventional education and not because of their liking for
vocational education. *(Data provided by Directorate of Vocational Education, Govt. of Maharashtra)*

The bifocal scheme is offered in four vocational groups consisting of 16 subjects.

The present BIFOCAL scheme is given as under:-

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Subject</th>
<th>Teaching Period/Week</th>
<th>Examination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Theory</td>
<td>Practical/ Tutorial</td>
</tr>
<tr>
<td>1.</td>
<td>English</td>
<td>5</td>
<td>--</td>
</tr>
<tr>
<td>2.</td>
<td>Mathematics</td>
<td>5</td>
<td>--</td>
</tr>
<tr>
<td>3.</td>
<td>Physics</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>4.</td>
<td>Chemistry</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>Vocational Subject I</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>6.</td>
<td>Vocational Subject II</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

➤ **Benefits of HSC Bifocal Scheme**

1. This scheme provides vertical mobility into undergraduate programs.
2. The scheme provides a platform for the students who wish to go for professional degrees like Engineering and Medical.
3. This scheme is popular with students and experience suggests that meritorious students join this scheme.
4. It gives rebate of two general subjects to students who are inclined and determined to go for professional / conventional education in future.
5. The Vocational subjects are practical oriented and hence enables the student to obtain high scores and thus a better overall result and higher percentage on the HSC Mark sheet.
Problems of HSC (BIFOCAL) Scheme

1. Very few students opting for HSC Bifocal are entering the labour market.
2. Many institutes have not created separate infrastructure to cater to the training needs of vocational education and training.
3. 40% seats in bifocal are reserved for pre-vocational students. However, these seats are not fully utilized as the feeder channel does not provide sufficient technical students for this scheme. These seats are later given to the non-technical students.
4. The bifocal stream does not allow students to opt for any vocational subject of his choice. The option of vocational subject is restricted to the bifocal stream the student is enrolled in.
5. The periodic revision of curriculum is not taking place for this scheme.
6. It is apparent that students look at the BIFOCAL stream only to get additional marks in the HSC examination, with the objective of pursuing conventional education and not because of their liking for vocational education.

3.5 PRESENT SCENARIO INDUSTRIAL, TECHNICAL TRAINING & SKILL DEVELOPMENT

A. Industrial Training Institutes / Centres (ITI / ITC)

The DGE&T in Ministry of Labour and Employment conducts vocational training courses through 6906 ITIs/ITCs with a total capacity of 9.53 lakhs (Source – Human Resource and Skill Requirements in the Education and Skill Development Services sector (2022) – A Report by NSDC). In the State of Maharashtra, there are a total of 416 ITIs and 310 ITCs with an intake of approximately 1,50,000 (113644 in ITIs and 35512 in ITCs) students. Total of 116 NCVT vocational courses are available across India out of which the State of Maharashtra has introduced 89 courses in these ITIs and ITCs. These courses range from 6 months to 3 years duration and cover wide range of sectors such as Engineering and Non Engineering. The Non Engineering sector includes Food, Textile, Services, Para Medical etc. (Data provided by Directorate of Technical Education).
The present ITI Scheme for technical trades offered at 10+ level is as under:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Subject</th>
<th>Examination Scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Theory</td>
</tr>
<tr>
<td>1.</td>
<td>Employability Skills (Quality mgmt,</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Communication skills, English, safety</td>
<td></td>
</tr>
<tr>
<td></td>
<td>environment, leadership &amp; teamwork)</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Engineering Drawing</td>
<td>50</td>
</tr>
<tr>
<td>3.</td>
<td>Workshop Calculations &amp; Science</td>
<td>50</td>
</tr>
<tr>
<td>4.</td>
<td>Trade Theory</td>
<td>100</td>
</tr>
<tr>
<td>5.</td>
<td>Workshop Trade Practical</td>
<td>-</td>
</tr>
<tr>
<td>6.</td>
<td>IT Literacy</td>
<td>Not reflected in the marksheet</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>250</td>
</tr>
</tbody>
</table>

- **Benefits of pursuing Industrial Training Institute programs**
  1. The curriculum is designed at national level in consultation with industry and is uniform across all ITIs.
  2. ITI pass outs obtain National level trade certificate of NCVT.
  3. Training is practical oriented and skill based which is more suitable for technical trades required in the industries. This improves the employability of the students in the organized industrial sector.
  4. CTS scheme is supported by well structured apprentice training scheme which gives facility to all ITI pass out students to get industrial exposure with on-job training on stipend basis which makes them industry-ready and fully skilled.
  5. A nominal fee is charged in Govt. ITIs.
  6. As the scheme has been in place since 1950, it has more industrial acceptance.
7. 2% seats are reserved for ITI students in respective branches of Polytechnic Colleges.
8. The ITI pass out students can enroll into vocational diploma programs under artisan to technocrat scheme.

- **Problems of Craftsman Training Scheme (ITIs)**
  1. ITI courses are mostly available in the engineering trades. Non-Engineering and Service sector courses are not widely available in ITIs.
  2. The salaries received by ITI students are relatively low in comparison to the training received.
  3. ITI students get placed in low level jobs with very few emoluments.
  4. No general academic skills like life coping skills, numeracy, analytical skills, etc. are compulsory part of the syllabus. Industrial experience suggests that the prospective employers want workers with these general academic skills in addition to hard skills.
  5. The curriculum is not competency based. The teaching-learning pedagogy is not well developed for competency based assessment.
  6. No modern techniques of teaching and training are employed. Use of ICT in training is minimal.
  7. The faculty is not well trained and lacks the necessary qualification. Faculty often does not have latest skills. Further continuous skill upgradation through periodical refresher training courses is not available or emphasized. This fact is supported by feedback received from faculty working in ITIs and Vocational Colleges across Maharashtra.
  8. The syllabus is rigid. The system does not allow for any changes to be incorporated in the curriculum as suggested by the local industries on a continuous basis.
  9. The curriculum revision procedure is lengthy and takes more than 5 years which results in the syllabus getting outdated.
  10. The ITI courses are generally opted by students with low aptitude for academics and belonging to economically backward sections and rural population.
  11. 30% reservation has been given to female students in all trade of ITIs, yet only 3% girls enroll for ITI courses.
12. Vertical mobility is limited to 2% seats in Polytechnics for two year duration ITI courses. Students pursuing non technical courses do not have an option of career advancement.

13. As the training imparted is out of date, the industries need to re-train the students before employing them. Thus, the students passing out of ITIs are not market ready.

14. Modernization has led to specialization in the skills required by the industries. Certificate level training is not sufficient for students to undertake complex jobs. This has created a need to offer further specialization through vocational diploma and vocational degree programs to vocational sector students.

15. As no standard procedure has been adopted for sector wise skill mapping and future manpower projection, the selection of courses and thereby the supply of manpower is not in line with market needs.

16. The procedure for setting up of ITCs is rigid in nature. This discourages private industries and other private players from coming forward and establishing ITCs.

3.6 MAHARASHTRA STATE BOARD OF VOCATIONAL EDUCATION (MSBVE)

Presently, Maharashtra State Board of Vocational Education (MSBVE) is offering 1014 courses of duration varying from 6 months to 2 years and covering school drop outs, minimally educated and graduates. Approx 70,000 students are enrolled in MSBVE courses across Maharashtra. (Data provided by Maharashtra State Board of Vocational Education) Many courses / diplomas are offered by MSBVE at 10+2 level. These courses are however, terminal in nature and do not provide any vertical mobility options to the students.

3.7 MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION (MSBTE)

Maharashtra State Board of Technical Education (MSBTE) offers diploma courses in 23 disciplines through polytechnics and affiliated institutions.

Maharashtra has 1077 Polytechnics (385 – AICTE approved, 183 – Pharmacy/Non AICTE & 509 other Govt. approved Institutes running short term courses and
diplomas). Total Intake capacity in Polytechnics is 1,46,169 out of which actual enrolled are 1,30,000 students. *(Data provided by Maharashtra State Board of technical Education)*.

Polytechnics offer diploma courses of one year to three year duration after 10th, 12th, diploma and graduation. These courses are in various disciplines such as Engineering, Hotel Management, Catering Technology, Pharmacy, Fashion Technology, Wine Technology, Management, Industry & Fire Safety, Computer & IT and Travel, Tourism. Several scholarships are also offered to deserving students.

AICTE diploma programs have gained tremendous popularity in the Engineering sector as the vocational students have clear vertical mobility paths into Engineering Colleges as these students get direct entry into 2nd year Engineering. Students can also take admission in 1st year engineering if seats remain vacant. In 2010-2011, 22,023 seats were vacant in engineering 1st year. Non AICTE diplomas are mostly terminal in nature with limited vertical mobility options.

The Polytechnics also run non-AICTE diploma programs which do not provide any vertical mobility options to the students. However, these diplomas are viable options for vocational students who do not have other options of higher education.

**Benefits of the Polytechnic Scheme**

1. There is a 20% quota for Polytechnic students in Engineering College. These students get direct entry into 2nd year of Engineering without appearing for an entrance exam.

2. State Board has given AICTE diploma equivalence to HSC

3. Besides the 20% quota, seats which remain vacant in 2nd year Engineering are being offered to Polytechnic students. The concurrence of the Govt. and AICTE has been obtained.

4. Permission has been granted to desirous Engineering colleges to start a separate Division for Polytechnic Diploma holders

5. AICTE also allows Engineering Colleges to admit Polytechnic students in 1st year Engineering if seats remain vacant. No entrance test is required for the same.

Although there is vertical mobility for Polytechnic Diploma students this is limited and non-polytechnic diplomas do not enjoy similar opportunities. Most of these diplomas are terminal in nature.
3.8 PRESENT SCENARIO OF COMMUNITY COLLEGES IN INDIA

The Community College is an alternative system of education, which is aimed at empowerment of the disadvantaged and the underprivileged (Urban poor, Rural poor, Tribal poor and Women) through appropriate skills development leading to gainful employment in collaboration with the local industry and the community and achieve skills for employment and self employability of the above sections of people in the society. The Community College is an innovative educational alternative that is rooted in the community providing holistic education and eligibility for employment to the disadvantaged.

The Community College scheme was rolled out by the Govt. of India in 2008, by appointing IGNOU as the nodal agency. There are 128 Community Colleges established as of date under the aegis of IGNOU. Community Colleges generally have a 2-year curriculum that either leads to an Associate degree with a facility for further transfer to an undergraduate program in a college or leading to the students’ direct entry into any occupation or trade.

➢ Present Scheme
1. Associate Degrees of 2 years duration are offered at +2 level by Community Colleges and other Vocational Institutions in India.
2. Community Colleges also offer short term certificate courses and diploma programs. The certificate is from the College or joint certificate with IGNOU.

Present courses are in various vocations ranging from hospitality, tourism, para medical, technical, services etc.

➢ Problems with present scheme
1. The Associate Degrees are not yet available in a wide range of vocations and are not popular amongst students as this scheme is not implemented in all States.
2. There is no uniformity or standardization of course content, curricula or certification.
3. Vertical Mobility is not clearly defined - The purpose of this scheme was to award associate degrees in the Community Colleges and also to provide vertical mobility into under graduate programs at IGNOU or other Universities/Colleges. However,
this scheme did not gain popularity as the mobility options are not clear and provided for. Other than IGNOU, no conventional colleges or Universities accept Community College students.

4. The benefits of this scheme were not clearly defined and communicated to potential students. All stakeholders including UGC, Conventional Universities and Local Colleges have not given a buy-in for this scheme as such it has remained restricted.

5. The overall implementation has remained fragmented and ineffective.

6. Vertical Mobility into other Universities for undergraduate programs or into Polytechnics for diplomas is not available.

7. Credit Transfer across other Universities (other than IGNOU) is not available.

8. The certificate courses although vocational in nature do not focus on skill development and hands-on training. Further such certificates do not have any recognition through DGET or any other national body – other vocational training providers offer NCVT certificates which are nationally recognized. However students completing certificate courses from Community Colleges in vocational areas do not get NCVT certificate or any other nationally or State recognized certificate automatically.

9. There is no mechanism for quality check and no emphasis on the vocational teaching learning pedagogy. As a result the quality of teachers, and teaching in Community Colleges is questionable as compared to other accredited vocational training providers.

10. Community Colleges do not have standardized infrastructure, laboratories or equipment as compared to accredited vocational training providers as such the quality of hands-on training is questionable. This scheme has not been recognized by any State Govt. or UGC as such there are no ‘defined’ parameters for establishing or maintaining a Community College.
3.9 PRESENT SCENARIO OF VOCATIONALISATION OF HIGHER/TERTIARY EDUCATION

In the changing global scenario, employment possibilities of graduates and post-graduates of general subjects are becoming increasingly limited. The education imparted at degree level is not oriented to the market needs and neither is it skill based.

Attempts to restructure the Indian education have been made over a period of time. However, the vocational education system has remained terminal in nature. The students pursuing courses in the vocational streams do not have an option of vertical mobility into degree programs in their chosen vocational sector. The social acceptability of the vocational education being low the students do not opt for higher education in the vocational field, also due to lack of higher level degree programs the parents of these students do not encourage them to continue their education in the vocational stream. This coupled with other reasons of quality, standardization, recognition and fragmentation have led to the failure of various vocational schemes introduced at both National and State level.

University Grants Commission (UGC) also launched the scheme of vocational education in the academic session of 1994-95. This curriculum of vocational education was introduced as a part of undergraduate courses of Arts, Science, Commerce, and Engineering & Technology. At present this scheme is being implemented in 100 Universities covering 1317 colleges. However, this scheme has not been successful. Evaluation of Vocational Education Scheme of UGC done by Institute of Applied Manpower Research suggests that lack of infrastructure, absence of trained teachers, poor quality of training, lack of on the job training and practical oriented approach were the major reasons for the failure of this scheme. (Evaluation of Vocational Education Scheme of UGC done by Institute of Applied Manpower Research)

The failure of the above scheme also indicates that vocationalization of tertiary education cannot be done through conventional universities. The different teaching learning pedagogy of Vocational education and training cannot be imparted through existing colleges and Universities without training the faculty and creating infrastructure or linkages with industry which are critical components for success.
In the State of Maharashtra, Vocationalization of higher secondary education has been implemented through introduction of the MCVC scheme popularly known as HSC (vocational) scheme. However, survey conducted by the researcher indicates that students undergoing HSC (vocational) aspire for higher education. Thus, vocational education at higher secondary level must be viewed as a preparatory stage for students to enter higher / tertiary education system rather than as a terminal stage. Furthermore the Community Colleges, Polytechnics and other VTPs need to have a comprehensive vocational education system with clear vertical mobility options in order to make the vocational stream successful and popular. Today, many parents and young children do not see the vocational stream as a viable alternative to the academic stream in spite of the fact that they may have more aptitude for ‘hands-on’ courses rather than theoretical subjects. The creation of a clear, well defined vocational education system starting at school level going upto higher secondary, graduate and post graduate level will give birth to a popular alternate system of education which will create skilled human resources suitable for employment and entrepreneurship within the local industry and community.

Worldwide, such a comprehensive vocational education and training system is not only available as an alternative system but is also extremely popular and successful. In fact in many countries such as Germany, China, Korea and others students prefer the VET system over the academic sector as it offers tremendous potential for gainful employment. One of the key factors for the success of the VET system in other countries has been the opportunities for vertical and lateral mobility into higher / tertiary vocational education programs. Such higher / tertiary vocational education programs are offered in other countries through dedicated Vocational Universities, Universities of Applied Sciences, Dual Mode Universities and Community Colleges. In Germany for example, the Universities of Applied Sciences have become extremely popular over past few decades and have trained majority of the country’s workforce. It is seen that industry preferred students passing out from such Universities in Germany as compared to conventional / academic Universities. Today there are about 160 Universities of Applied Sciences in Germany. A similar situation exists in China, Korea and Australia where students have started opting for the vocational system and are participating in large numbers in the vocational higher / tertiary education programs. It is seen that such universities have also become a bee-
hive for industrial employees to obtain advanced skill development and continuous skill up gradation.

3.10 PRESENT SCENARIO OF VOCATIONAL FACULTY TRAINING & DEVELOPMENT

At present, there is no specific Government rule related to vocational faculty qualifications. The World Bank Report (2006) suggests that one of the major concerns of industry is poor quality of curriculum. This aspect is closely linked to quality of teachers who teach in vocational colleges and ITI/ITCs. It is seen that teachers are not equipped with knowledge of the vocational teaching learning pedagogy. Many of them try to apply the conventional teaching pedagogy for teaching vocational or skill based courses. Teachers also lack sufficient knowledge of ICT and are unable to deliver technology based learning. Soft skills are many times absent in vocational teachers especially those from semi-urban and rural colleges. As a result the teaching is not effective. Furthermore, the assessments designed by the present vocational teachers are also not designed to judge the skills obtained by students. The assessments mostly emphasize testing of theoretical knowledge. As such inspite of undergoing a vocational or technical course, it is observed that students do not possess the level of skill required and the desired outcome is not achieved. Due to these reasons, industry has concerns about quality of vocational students. Thus vocational students end up getting re-trained when they join the industry.

The other major concern related to vocational teachers is related to continuous teacher development through training. Such continuous training is not mandatory at present for vocational teachers. Prior industry experience is also not a mandatory requirement while hiring teachers in vocational institutions. As such, vocational teachers themselves do not possess latest skills required to train students. Furthermore, strong industry interface, collaboration, research and continuous training is lacking amongst vocational colleges and ITI/ITCs. As a result, vocational teachers do not get exposure to latest machinery, equipment, skills and pedagogy. Research as a component of academics, is also unseen in vocational colleges and ITI/ITCs. Industry sponsored research projects are unheard of in most vocational institutions. All this affects
quality of teaching-learning, curricula and finally quality of students coming out of vocational colleges, ITI/ITCs.

The PSSCIVE (PSS Central Institute of Vocational Educational, Bhopal) is an arm of NCERT and focuses on development of curricula and content for the vocational education sector. At the State level (in Maharashtra) however, no such dedicated institute for vocational curricula & content development or vocational teacher training exists at present.

(Source – Human Resource and Skill Requirements in the Education & Skill Development Services sector (2022) – A Report, by NSDC)

The demand for Vocationally Skilled persons (in addition to ITI/ITC qualified persons) is expected to be anywhere between 25% and 85% of the workforce. Considering the need for skilled manpower is increasing rapidly, it is imperative that the requirement of trained teachers will also increase. The NSDC estimates that the requirement of vocationally trained teachers would be about 5.8 million annually between 2008 and 2022. The Skill Development Centers which are proposed to be established by NSDC numbering about 5000 by 2013 will themselves require about 40,000 trained teachers. The need for assessors will also increase proportionately. NSDC estimates that about 415,000 teachers will be required to undergo training annually from the vocational education and training sector. Therefore, a need for establishing several teacher training institutes across the country will emerge in the coming years.

In fact, along with good infrastructure and strong industry collaboration, a large pool of trained teachers will also be a critical component of the vocational education and training system. However, it is not just important to train large number of vocational teachers. It is equally important to focus on quality of teacher training, industry liasoning through collaborative projects for skill upgradation of teachers and continuous development through life-long learning opportunities.
3.11 PRESENT SCENARIO OF VOCATIONAL EDUCATION, TRAINING & SKILL DEVELOPMENT IN RELATION TO INDUSTRY

Industry plays an important role in the Vocational Education, Training and Skill Development sector. In the past, the Industry has not played an active role in the development of this sector. High cost of training, inability to afford downtime and increasing overheads and costs associated with poor efficiency are all factors which have driven the industry to demand skilled workforce. As compared to countries such as Korea where over 90% of the workforce is vocationally qualified, India has only 5-7% of its workforce vocationally trained or qualified. Most skills obtained by workers are through an informal training system such as family inheritance or “guru-shishya parampara”. As a result, it is very difficult to measure the competencies of skills or create any standards of competency levels. Inability to measure competencies or establish any standards for occupation to skill mapping makes it difficult for industry to associate optimal wages for skills of workers. One of the major reasons for limited success and popularity of the VET sector has been the inability of the industry to emphasize formal vocation qualifications or training for its workforce. As such majority of the industry workforce continues to be poorly qualified and do not go for further skill enhancement. There is no focus from the industry for in-service training and as such skill upgradation is not taking place. These aspects need to be seriously addressed by the industry as productivity is directly linked to skilled manpower.

3.11.1 Trends related to Labour Market

An analysis of the labour market has brought the following issues to the fore:-
1. Labour market requirement for skilled workers without general education skills is declining. The industrial concern on vocationally qualified work force is as illustrated:-
2. High growth sector related vocational courses are not being widely offered. There has been a decline in minimal skilled jobs which require lower educational qualifications. For example: there are 4.0 million trained and skilled persons required in high growth sector in Maharashtra alone by 2012, out of which minimally skilled required are only 1.1 million. Composition of employment in industrial sector is indicated below:

![Bar Chart](image)

Source: FICCI (2002)

As indicated above, the high growth sectors are transport, communication, finance, insurance, real estate and business services. Vet sector should concentrate on high growth sector related skill development courses.

Labour force participation is declining while student participation is increasing. Thus more students are joining higher secondary education and looking for vertical mobility.
Inability to measure competencies or establish any standards for occupation to skill mapping makes it difficult for industry to associate optimal wages for skills of workers. One of the major reasons for limited success and popularity of the VET sector has been the inability of the industry to emphasize formal vocation qualifications or training for its workforce. As such majority of the industry workforce continues to be poorly qualified and do not go for further skill enhancement. There is no focus from the industry for in-service training and as such skill upgradation is not taking place. These aspects need to be seriously addressed by the industry as productivity is directly linked to skilled manpower.

Some of the major concerns of the industry related to the VET sector are:

1. Poor quality of training
2. Curricula of training not aligned to industry needs, lack of input of industry in academics
3. Lack of general academic skills such as numeracy, problem solving, presentation skills, entrepreneurship etc.
4. Lack of global awareness and understanding of specific industry needs
5. Lack of standardization in certification or content
6. Inability to judge competency or skill level
7. Lack of incentives from Government for industry participation
8. Lack of engagement from other stakeholders of the VET sector such as community and Government.

In spite of the above issues there is no denial that industry plays a vital role in the overall development and growth of the VET sector. (*FICCI, 2002 Report*).

### 3.12 PRESENT SCENARIO OF UNORGANIZED SECTOR

Over 90% of employment in India is in the unorganized sector. For this large section of the population attainment of Vocational education and training is crucial. Within this unorganized sector, 40% are employed by enterprises/companies, while about 60% are self-employed. Male workers constitute about 60% of the informal employment in manufacturing and services sector, while female workers constitute about 40%. As of 2007, about 427 million persons were employed in various sectors, with agriculture accounting for about 50%-55% of the employment.
(Human Resource and Skill Requirements in the Unorganized Sector Study by National Skill Development Corporation).

The National Skill Development Policy, 2009 has identified the target groups in the unorganized sector as own-account workers, workers and apprentices in micro enterprises; unpaid family workers; casual labourers; home-based workers; peripatetic workers and migrant labourers; out of school youth and adults in need of skills; farmers and artisans in rural areas, among others.

The various sectors and areas of occupation in the Informal/Unorganized Sector are illustrated below:-

<table>
<thead>
<tr>
<th>Sector</th>
<th>Job title</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Manufacturing Sector</strong></td>
<td></td>
</tr>
<tr>
<td>Wearing Apparel; Dressing and Dyeing of Fur</td>
<td>Stitchers, tailors, sewing machine operators, dress makers, sewers, upholsterers</td>
</tr>
<tr>
<td>Leather and leather goods</td>
<td>Stitchers, tanners in tanneries, cutters</td>
</tr>
<tr>
<td>Tobacco Products</td>
<td>Tobacco and beedi makers</td>
</tr>
<tr>
<td>Food Products and Beverages</td>
<td>Operators, packers, sorters, cleaners, inspection</td>
</tr>
<tr>
<td>Textiles</td>
<td>Stitchers, tailors, sewing machine operators</td>
</tr>
<tr>
<td>Furniture; Manufacturing</td>
<td>Carpenters and wood workers</td>
</tr>
<tr>
<td>Other Non-Metallic Mineral Products</td>
<td>Machine operators, workers, helpers</td>
</tr>
<tr>
<td>Fabricated Metal Products, Except Machinery and Equipment</td>
<td>Welders, Electricians, Fitters, Machinists</td>
</tr>
<tr>
<td>Chemicals and Chemical Products</td>
<td>Machine operators, workers, helpers</td>
</tr>
<tr>
<td>Construction</td>
<td>Workers, Masons, Carpenters, Plumbers, Electricians, stone cutters</td>
</tr>
<tr>
<td>Hotels and Restaurants</td>
<td>Cooks, stewards, waiters</td>
</tr>
<tr>
<td>Sector</td>
<td>Job title</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Manufacturing Sector</strong></td>
<td></td>
</tr>
<tr>
<td>Transport, Storage, and</td>
<td>Drivers, helpers, loaders, workers</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>Other community, social, and</td>
<td>Domestic workers, cleaners,</td>
</tr>
<tr>
<td>personal services</td>
<td>beauticians, security guards, hair</td>
</tr>
<tr>
<td></td>
<td>dressers, and other related areas</td>
</tr>
<tr>
<td>Retail</td>
<td>Show owners (kirana), assistants,</td>
</tr>
<tr>
<td></td>
<td>Salesmen</td>
</tr>
</tbody>
</table>

*Source: NSSO, and IMaCS analysis*

The National Policy of Education, 1986 (as modified in 1992) in para 4.14 states that a critical development issue today is the continuous up gradation of skills so as to produce manpower resources of the kind and number required by the society Special emphasis will, therefore, be laid on organization of employment/self employment oriented, and need and interest based vocational and skill training programs.

The training in the informal sector is mainly carried out through NIOS which offers 85 courses through 700 providers, Community Polytechnics which train about 45,000 annually, Jan Shikshan Sansthan (JSS) offering 255 types of vocational courses. *(World Bank Report, 2006)*

However, no mechanism exists that recognizes the experience and the skill attained by a person in the non formal sector which will enable him to upgrade his skill through formal vocational training.

### 3.12.1. MODULAR EMPLOYABLE SCHEME (MES)

Under the skill development initiative program of Government of India, scheme on Modular Employable Skills (MES) for training, assessment and certification of the school drop outs, existing workers who have acquired proficiency through informal means, agriculturists, women, physically challenged persons etc has been introduced in 2007. This scheme aims to help the people in the unorganized sector to access the decent jobs in the word of work.
MES courses are provided through 855 Vocational Training Providers (VTPs). The MES courses are available in 65 sectors covering nearly 1400 courses. New courses are being introduced at regular basis as per the market demands.

The salient features of the scheme are as under:-

(a) Course duration - 90 hrs to 300 hrs
(b) Fee reimbursement is done to the passout students from Govt. of India  
(c) It is a totally flexible scheme
(e) National level certificate of NCVT is given to MES a passout student which enables them to seek a job.
(f) MES certificate is also given to persons in unorganized sector who have acquired skill through informal training by carrying out an assessment as a direct student.

➢ Problems of MES Scheme
1. There is no standardization of assessment for MES courses.
2. For each of the MES courses parameters such as requirement of infrastructure, staff, equipment, assessment criteria, course content etc are not defined.
3. The reimbursement of fees to the students is often delayed.

➢ Other Problems of Vocational Training in unorganized sector
1. The provision of recognition of prior learning (RPL) does not exist in any of the formal vocational training providers like ITIs, Polytechnics etc. Thus, public sector vocational training providers have a limited role in the training of the unorganized sector.
2. The training needs of the informal sector cannot be addressed through traditional vocational education and training methodology. The sectors of occupation identified for the unorganized sector are not covered by any of the formal vocational training providers.
3. Additional bridge courses are not offered by any of the VTPs to enable people in the informal sector to enter mainstream vocational education sector.
4. The national policies on education has focused on providing primary education in the informal sector rather than alternate skill oriented training coupled with general academic skills.
5. The informal apprenticeship training which is predominant in our country is based on traditional methods of training and quality of training delivered depends on the skill of the artisan. The basic foundation of general education is missing and only functional skills are being passed from generation to generation.

6. Entrepreneurs in the unorganized sector require additional skills like life coping skills, numeracy, problem solving, analytical skills, quality control, marketing, legal regulations etc. These skills are not being imparted by any vocational training provider.

7. The unorganized sector students who acquire vocational training find it difficult to easily obtain financial assistance both for vocational training and for starting their own business. As such students from this sector do not see a huge benefit in the vocational training stream and are not readily open to pursuing this stream.

8. The Industry does not emphasize for formal vocational training for the unorganized sector work force due to which there is no motivation or compulsion on such workers to obtain vocational certification.

9. Industry recognition for MES courses is not very high