

*Report of the  
Working Group on*

**Skill Development  
And  
Vocational Training**



Government of India  
Planning Commission  
New Delhi

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**Terms & Reference of the Working Group**

No.Q-20017/1/06/LEM/LP  
Government of India  
Planning Commission  
(Labour, Employment & Manpower Division)

Yojana Bhawan, Sansad Marg,  
New Delhi-1 dated 6th March, 2006

**ORDER**

**Constitution of Working Group on Skill Development & Vocational Training**

In the context of preparation of Eleventh Five Year Plan, it has been decided to set up a Working Group on Skill Development & Vocational Training with the following composition.

1.	Secretary, Ministry of Labour and Employment, Govt. of India(GOI), Shram Shakti Bhawan, Rafi Marg, New Delhi		Chairman
2.	Secretary (Department of Secondary & Higher Education), GOI or his nominee, C-Wing, Shastri Bhawan, Delhi-110001		Member
3.	Secretary (Department of Women & Child Development), GOI or his nominee, C-Wing, Shastri Bhawan, Delhi-110001		Member
4.	Secretary (Ministry of Rural Development), GOI or his nominee, Krishi Bhawan, Delhi-110001		Member
5.	Secretary (Labour and Employment), Government of Karnataka, Secretariat, M.S. Building, Bangalore – 560001		Member
6.	Secretary (Labour and Employment), Government of Haryana, New Secretariat, Sector-17, Chandigarh - 160001		Member
7.	Secretary (Labour and Employment), Govt. of Assam, Assam Secretariat, Guwahati-781006		Member
8.	Secretary (Labour and Employment), Government of Maharashtra, Mantralaya, Mumbai -400032		Member
9.	Secretary (Labour and Employment), Government of Rajasthan, Secretariat, Jaipur - 302005		Member
10.	Chairman, AICTE, Indira Gandhi Sports Complex, IP Estate, New Delhi –110002		Member
11.	Chairman, Medical Council of India, Combined Council's Building, Kotla Road, New Delhi-110002		Member
12.	Shri N. Srinivasan, Director General, CII, 23-26, Institutional Area, Lodhi Road, New Delhi – 110003		Member
13.	Dr. Amit Mitra, Secretary General, FICCI, Federation House, Tansen Marg, New Delhi –110001		Member
14.	Representative of NASSCOM, I, Second Floor, Circular Road, Chankyapuri, New Delhi-110021		Member
15.	Dr. V.S. Raju, Former Director of Delhi IIT House No. 74, Road N. 4, Jubilee Hills, Hyderabad –500034		Member

## Report of the Working Group on Skill Development and Training set up for preparation of XI plan

16.	Prof. N.K. Bansal, Vice Chancellor, Shri Mata Vaishno Devi University, Campus, J&K State, Kakrial P.O. Kakrial, Distt. Udhampur- 182181		Member
17.	Shri A. Ramakrishna, Former Vice Chairman L&T, M-6, Anna Nagar East, Chennai – 600102		Member
18.	Shri G.S. Sethi, Former DDG, DGE&T, House No. 95, Phase-IV, Mohali-160059, Punjab		Member
19.	Director, Central Institute for Vocational Education, PSSCIVE-131, Zone-II, M.P. Nagar, Bhopal-462011		Member
20.	Principal Advisor (Health, Nutrition & FW), Planning Commission, Sansad Marg, New Delhi-110001		Member
21.	Advisor (Tourism), Planning Commission, Sansad Marg, New Delhi-110001		Member
22.	Advisor (VSE), Planning Commission, Sansad Marg, New Delhi-110001		Member
23.	Advisor (LEM), Planning Commission, Sansad Marg, New Delhi-110001		Member
24.	Joint Secretary & DGE&T, M/o Labour and Employment(GOI), Shram Shakti Bhawan, Rafi Marg, New Delhi-110001		Convener

2. The Terms of Reference of the Working Group will be:

- a) To assess the impact of on-going programmes for skill development under different streams like craftsmen and vocational training including non-formal training system and skill development efforts in the unorganized sector with regard to their relevance in the context of technological change taking place in the economy as well as in achieving the objectives like productivity and incomes, specially in the unorganized sector of the economy;
- b) To evaluate the feasibility of providing vocational skills to all entrants to labour force and the feasibility of attaining this target by the end of Eleventh Plan and to suggest a strategy for accomplishing this objective;
- c) To review the growth of vocational Training Industry outside the domain of public sector since inception and to suggest appropriate framework for Vocational Training Policy in order to foster its growth.
- d) To identify emerging requirements of training, both formal and non-formal; and assess the capacity and potential of the existing institutional set up in relation to the emerging skill requirements
- e) To recommend appropriate labour market intelligence system for better matching of demand and supply of marketable skills.
- f) To suggest measures for augmenting the role of industry from merely advisory level to that of supplementing inputs for managerial level to further strengthen the industry institute interaction in ITIs.
- g) To examine the aspects of providing autonomy to Institute Management Committees (IMCs) as contrasted with the options like (i) adoption of ITI by Industry Associations and / or (ii) restricting the scope to that of merely technical input rendered by Industry Associations.
- h) To examine the functioning of the existing institutions, at the national and state level, such as National and State Councils for Vocational Training, Apprenticeship Council, etc.,

- i) To suggest appropriate frame work for skill development of rural youth.
  - j) To suggest appropriate frame work for skill development needed for women as a means for women empowerment in particular in the rural areas and also in low-income occupations in urban areas.
  - k) To suggest a mechanism for developing a frame work of National Qualification Pathway to interlink vocational education, vocational training and academic education in order to facilitate inter-stream movement of students and vocational trainees.
- 
3. The Chairman of the working Group may include additional term (s) of reference in consultation with Member (Labour and Employment), Planning Commission, who is Chairman of the Steering Committee on Labour and Employment.co-opt any other Expert as Member of the Working Group.
  4. The Chairman of the Working Group may co-opt any other Expert as Member of the Working Group.
  5. The Working Group will submit its report by April 30, 2006. The Ministry of Labour and Employment will provide the Secretarial assistance for the Working Group.
  6. The expenditure on TA/DA of official members in connection with the meetings of the Group will be borne by the parent Department/Ministry to which the official belongs as per the rules of entitlement applicable to them. The non-official members of the Group will be entitled to TA/DA as permissible to Grade 1 officers of the Government of India under SR 190(a) and this expenditure will be borne by the Ministry of Labour and Employment.
  7. Shri R K Bhatnagar, Director, Room No. 407, Yojana Bhawan, Sansad Marg (Tel. 23096535) will act as Nodal Officer and any further communication in this regard may be made with the Nodal Officer.

Sd/-  
( K.K.Chhabra)  
Under Secretary to the Government of India

## **1 INTRODUCTION**

### **1.1 Background and Objectives of the Working Group**

Planning Commission vide its order no. Q-20017/1/06/LEM/LP dated 6<sup>th</sup> March, 2006 has constituted a Working Group on Skill Development and Training under the chairmanship of Secretary (Labour and Employment). A copy of the order incorporating terms of reference is given at pages i to iii.

The terms of reference basically require that the existing skill development programmes may be reviewed with the intention of suggesting suitable strategies and mechanisms to meet future challenges. The terms of reference are fairly comprehensive and therefore, it requires a total look to all aspects of skill development programmes.

The meeting of the Working Group was held on 12<sup>th</sup> July, 2006 in Shram Shakti Bhavan, Rafi Marg, New Delhi under Chairmanship of the Secretary (Labour & Employment). A separate sub-group comprising the following members was also constituted under the Chairmanship of Director General of Employment and Training:

- 1 Prof. V.S. Raju, Former Director, IIT Delhi
- 2 Representative of CII
- 3 Prof. N.K. Bansal, Vice Chancellor, Mata Vaishno Devi University.
- 4 Sh. G.S. Sethi, Ex-DDG, DGE&T, M/o Labour & Employment
- 5 Representative of FICCI
- 6 Representative of AICTE
- 7 Shri A Ramakrishna, Former Vice Chairman of L&T
- 8 Adviser (LEM), Planning Commission

The meeting of the sub- group was held on 24.8.2006 in Shram Shakti Bhavan, Rafi Marg, New Delhi under Chairmanship of Sh. K.K. Mittal, Director General of Employment and Training/ Joint Secretary.

## 2 EMPLOYMENT SCENARIO IN INDIA

India is a predominantly agricultural country. Wage employment is a small fraction of total employment. As per estimates of the National Sample Survey Organisation, there were about 90 lakhs people totally unemployed in 1999-2000, out of which about 55 lakhs were educated with secondary and higher education levels. Compared to the size of the population, these numbers appear small. What is serious is the large number of employed persons working with low levels of productivity and income. Out of an estimated 397 million employed, about 122 million are poor, i.e. living below the poverty line. The main reasons for such a situation include inadequate growth of the economy, power productivity & labour force being inadequately skilled and growth rate of labour force being higher than the growth rate of employment etc.

### 2.1 Employment & Unemployment Situation in India

[during Jan-June 2004 (Usual Status basis)].

- Total Labour Force 45.8 Crore
- Total Employment 44.7 Crore
- Total Number of open unemployment 1.06 Crore
- Employment in organized sector 2.64 Crore
- Employment in Unorganized Sector 42.10 Crore
- No. of job seekers with Employment Exchanges 4.03 Crore  
(as on 31.12.2005)
- 71% of the job seekers registered with the Employment Exchanges are less than 29 years of age during 2003.
- Educated (X Standard and above) job seekers constitute about 75% of the total job seekers registered with the employment exchanges during 2003.
- Most of the job seekers (about 80%) in employment exchange are without any professional skill.

## **2.2 Tenth Plan Strategy and Emerging Areas for Employment**

- 8% growth with business as usual will contribute only 3 crore employment opportunities.
- Special employment generation programmes will yield 2 crore employment opportunities.
- Special emphasis on agriculture, irrigation, agro-forestry, small and medium enterprises, information communication technology, tourism and other services.

## **2.3 Importance of Skill development and Training**

Skills and knowledge are the driving forces of economic growth and social development of any country. The economy becomes more productive, innovative and competitive through the existence of more skilled human potential. The level of employment, its composition and the growth in employment opportunities are the critical indicator of the process of development in any economy. Increasing pace of globalization and technological changes provide both challenges and growing opportunities for economic expansion and job creation. In taking advantage of these opportunities as well as in minimizing the social costs and dislocation, which the transition to a more open economy entails, the level and quality of skills that a nation possess are becoming critical factors. Countries with higher and better levels of skills adjust more effectively to the challenges and opportunities of globalization.

## **3 VOCATIONAL TRAINING ADMINISTERED BY DGE&T**

Directorate General of Employment & Training (DGE&T) in Ministry of Labour is an apex organization for development and coordination of the vocational training including Women's Vocational Training to the employable youth in the country and to provide skill manpower to the industry besides providing Employment Services.



### **3.1 Responsibilities**

Vocational Training is a concurrent subject of both Central & State Government. At the National level, the Directorate General of Employment and Training, DGE&T, Ministry of Labour is the nodal department for formulation of policies, laying down standards, grant of affiliation to institutes offering training courses under NCVT, monitoring training programmes, trade testing & certification and matters connected to the fields of vocational training and providing employment services. However, the day-to-day administration of Industrial Training Institutes (ITIs) offering training courses rests with the respective State Governments/ Union Territories Administrations. Opening of new institutes, actual conduct of training programmes through Industrial Training Institutes/ Centres are also the responsibilities of State Governments.

### **3.2 Advisory Bodies**

The Government is advised by two tripartite bodies at the National level namely National Council for Vocational Training (NCVT) and Central Apprenticeship Council (CAC) for the purpose of laying down the policies and training standards, trade testing and certification. Introduction of new trades & deletion of obsolete trades are also done with the recommendation of the council.

◆ Both the councils are having members drawn from Industry, workers and employers organisations, Central Government Ministries, State/ UT Governments. Representation is also given to women, weaker sections of society and experts in field of Vocational Training .

#### **The major functions of the NCVT are to:**

1. Recognize training institutions run by government or by private agencies for purposes of the grant of National Trade Certificates and lay down conditions for such recognition;

2. Establish and award National Trade Certificates in engineering & non engineering trades and such other trades as may be brought within its scope by the Government of India;
3. Prescribe standards in respect of syllabi, equipment, and scale of accommodation, duration of courses and methods of training;
4. Arrange trade tests in various trade courses and lay down standards of proficiency required for a pass out in the examination leading to the award of National Trade Certificate;
5. Arrange for ad-hoc or periodical inspections of training institutions in the country to ensure that the standards prescribed by the council are being followed;
6. Co-opt, if necessary, any person or persons to advise the council in connection with its work;
7. Prescribe qualification for the technical staff of training institutions;
8. Prescribe the standards and conditions of eligibility for the award of National Trade Certificates;

### **State Councils for Vocational Training**

State Governments set up State Councils of Vocational Training which advises the state governments in respect of vocational training at state level.

## **3.3 VOCATIONAL TRAINING COURSES / ACTIVITIES**

DGE&T offers a range of training courses catering to the needs of different segment of the society. The courses are available for the school leavers; instructors of the training institutes , Industrial Workers, Technicians, Junior and middle level Executives, Supervisors/Foremen, Women, Persons with disabilities, SC/STs, Ex-servicemen, Retrenched workers etc.

### **3.3.1 Courses for school leavers**

Training courses are offered for school leavers through a network of more than 5000 Industrial Training Institutes (ITIs) located all over the country.

- The courses have been designed to impart the basic skills and knowledge in the trades so as to prepare the trainees for the employment as semi-skilled & skilled workers in the world of work or to go for the self-employment.
- The duration of the training varies from trade to trade from six months to 3 years. . The student with academic qualification ranging from 8<sup>th</sup> pass to 12<sup>th</sup> pass seeks admission in these courses.
- About 0.75 million training seats are available at the ITIs throughout the country. Over 46,000 seats are exclusively created for the women. Reservation to SC/STs, Disabled, OBCs, Ex-servicemen etc. has also been made as per Govt. directives received from time to time.

### **3.3.2 Centres of Excellence**

- Union Finance Minister, in his Budget speech 2004-05 has stressed that skills imparted by ITIs must keep pace with the technological demands of the Industry and the expanding universe of knowledge to produce world class workforce with **public-private partnership model**.
- DGE&T, Ministry of Labour & Employment has taken up a scheme to upgrade the 100 existing ITIs into centres of excellence. These ITIs will cater to the skill requirements of the cluster of Industries in the particular areas by
  - Introduction of multiskilling courses (**Broad Based Basic Training**) during the first year
  - Advanced/specialised modular courses subsequently
  - Improvement of physical infrastructure facilities like buildings, equipment etc.
  - Adoption of new training technology with close involvement of industry and other stake holders in planning and implementation of training programs.
  - Empowering these centers by providing sufficient autonomy in academic, administrative, financial and management matters.

- Building up partnership with the nearby industries by way of setting up of Institute Management Committees to make training wholly demand driven.
- Similar multi skill training courses are also offered in 4 Model Industrial Training Institutes (MITIs) under DGE&T. A total of **361 trainees** are undergoing training in these MITIs during the current session.
- 400 more ITIs would be upgraded with World Bank funding .

### ***3.3.3 Apprenticeship Training for the School leavers and ITI passed out persons.***

Apprenticeship Training is offered to the school leavers and the ITI passed out persons through a network of 20700 establishments in 153 designated trades covered under 32 trades group. 2.54 Million training seats are available in the establishment.

- The training is designed to utilize fully the facilities available in industry for imparting practical / on the job training in the industrial environment to the apprentices with a view to meeting the requirements of skilled manpower for industry and for the gainful employment to the employable youth of the country.
- Six Regional Directorate of Apprenticeship Training (RDAT) located at Mumbai, Kanpur, Faridabad, Kolkata, Hyderabad and Chennai have been set up for implementing the Apprenticeship Training in the Central Government PSUs/Establishments.
- Each State Governments has a Directorate of Technical Training / Directorate of Employment & Training which is responsible for implementation of the provisions of Apprentices Act in respect of State Government/private establishments through the office of State Apprenticeship Advisors mainly located at State Headquarters and Principals of the larger Government ITIs who also acts as Deputy/Assistant Apprenticeship Advisors.

### ***3.3.4 Training of trainers***

Crafts Instructor training for the potential and existing Instructors of Training Institutes in 27 trades with annual intake capacity of 1099 is offered at Five Advanced Training Institutes and One Central Instructor Training Institute, Chennai. The objective of the course is to train Instructors in the techniques of imparting industrial skills and also latest Training Methodology, who in turn would train semi-skilled/ skilled manpower for the world of work. Apart from above, instructor training is also provided in Eleven Women exclusive training institutes ( one NVTI & 10 RVTIs ).

In order to train a large number of untrained instructors who have completed more than five years of services, a three month module on Principle of Teaching covering pedagogic aspect has been introduced in eleven institutes under DGE&T .

## **3.4 Support Training Services**

### ***3.4.1 Training Standards (Curricula)***

Central Staff Training and Research Institute (CSTARI), Kolkata nodal institute responsible for development of training standards (curricula ) for various trade areas. The institute also offers training programmes for trainers and also for junior and senior level management personnel engaged in planning, execution and evaluation of vocational training programme for various organizations. Besides, it also undertakes Research and Development in the field of vocational training.

The course curricula are developed by Trade Expert Committees constituted for each trade, which comprise of experts from the relevant Industry, Government, Trainers and experts. These curricula are examined by NCVT before granting approval. Training courses are organized as per the approved courses through ITIs/ITCs spread all over the country.

### ***3.4.2 Instructional materials.***

National Instructional Media Institute (NIMI) Chennai has been set up for developing, printing of instructional media packages which includes theory and practical books, teachers assessment guide, transparencies, charts etc. Planning Commission vide their O.M. dated 1<sup>st</sup> March, 2006, has desired that a system of feed back should be developed by DGE&T, to keep on improving the quality of instructional material produced by NIMI, Chennai.

### ***3.4.3 Trade Testing and Certification***

#### **All India Trade Test**

Ministry of Labour & Employment has developed a well established system for conduct of All India Trade Test under the aegis of National Council for Vocational Training (NCVT), for award of National Qualification . The certificate issued under NCVT has credibility and is recognized both within the country and abroad. The National Trade Certificate (NTC) & National Apprenticeship Certificate (NAC) are also a recognized qualification for recruitment in relevant posts/services under the Central Government.

### **3.5 Strengths and Weaknesses of National Vocational Training System (NVTS)**

The National Vocational Training System (NVTS) evolved during the last five decades has its own Strengths and Weaknesses, which are listed below.

#### ***3.5.1 Strengths***

The strengths of NVTS are:

- ☺ The system's regular and increasing contribution to the stock of skilled manpower

- ☺ The graduates of the system have made significant contribution to the improvement of productivity in Industry. About 40% of the recipients of the PM's Shram Award for 2002 and 2003 are ITI graduates
- ☺ The system has a large base for easy introduction of new emerging skill training courses/ new schemes uniformly at national level
- ☺ The uniform curriculum, procedures, regulations, trade testing and certification, national coverage and credibility of the system, which ensures mobility of labour.
- ☺ A good structure having combination of institutional and Apprenticeship training
- ☺ Involvement of private sector and NGOs in setting up the training institutions.
- ☺ Infrastructure available for providing skill training at various levels.
- ☺ Special focus on women vocational training and training schemes for the handicapped

### **3.5.2 Weaknesses**

The effectiveness and efficiency of the system is low for the reasons:

- ☞ There is mismatch between skills requirement of the world of work and skills produced by NVTs.
- ☞ The system caters mainly to the needs of traditional manufacturing sector, which represents less than 10 % of the total workforce. The requirements of modern high-tech industries and services sectors as well as those of unorganised sector are not properly taken care of.
- ☞ Inadequate involvement of stakeholders in the design and implementation of the training programmes
- ☞ The emphasis over the years had been on quantitative rather than qualitative aspects.
- ☞ Inadequate budget provision for raw material, consumables and maintenance in most of the ITIs.
- ☞ The infrastructure in ITIs is poorly maintained.

- ☞ Substantial number of ITI trainers are not qualified/certified Crafts Instructors. The competency of existing trainers needs to be upgraded at regular intervals by appropriate interventions.

## **4 Recent initiatives in skill building**

### **4.1 Partnership with Industry**

DGET initiated a pilot programme 'Formation of Institute Managing Committee (IMC) for ITIs' in 1998 in collaboration with Confederation of Indian Industry (CII) to improve cooperation between Industry and ITIs. Under this concept, Industry is associated as partners rather than advisors. An IMC is formed at the ITI level, which manages some of the activities of ITI. An IMC comprises members from State Government, Industry, ITI and others. The chairperson of the committee is a representative of the local industry. This committee works under the supervision and control of Steering Committee, formed at the State level. Concerned State Secretary in charge of the vocational training at State level is the chairperson of Steering Committee.

IMCs have been constituted for about 500 ITIs in 28 States. The experience so far is that an actively functioning IMC can bring about significant improvements in the functioning of ITI. This has been especially so in terms of:

- ◆ better upkeep of machinery and equipment,
- ◆ training and development of faculty,
- ◆ Organising campus interviews,
- ◆ Placement of the trainees as apprentices,
- ◆ Arranging on-the-job training & industrial visits,
- ◆ Revenue generation / Job- work,
- ◆ Donation of Tools & Equipment,



- ◇ Vocational Guidance & Counseling,
- ◇ MIS system and
- ◇ Institution building

Planning Commission vide their letter date 1<sup>st</sup> May, 2006 has stressed upon the need for setting up of IMCs in all Government ITIs in a phased manner. DGE&T has developed six Models for Public Private Partnership in ITIs (Annex-I). These can be adopted by the ITIs.

## **4.2 Skill Development based on Modular Employable Skills (MES)**

### ***4.2.1 Background***

The need for giving emphasis on the Skill Development, especially for the less educated, poor and out of school youth has been highlighted in various forums. The skill level and educational attainment of the work force determines the productivity, income levels as well as the adaptability of the working class in changing environment. Large percentage of population in India is living below poverty line. One of the important causes is lower percentage of skilled persons in the workforce

The skill development at present is taking place mostly in the informal way, i.e. persons acquire skill at the work-place when they help their parents, relatives and employers etc. Such persons do not have a formal certificate and thus earn lower wages and are exploited by employers. They have come through informal system due to socio-economic circumstances of the family and the compulsions of earning a livelihood rather than attending a formal course. While their productivity is low, their contribution to the national GDP cannot be ignored. If the country can create a system of certification which not only recognizes their skills but also provides education and training in a mode that suits their economic compulsions, it will not only benefit the workforce to earn a decent living but also contribute to the national economy by better productivity of this workforce.

Another related problem to be tackled is large number of school drop outs (About 63% of the school students drop out at different stages before reaching Class-X).

#### ***4.2.2 Framework for Skill Development based on ‘Modular Employable Skills (MES)’***

Very few opportunities for skill development are available for the above referred groups (out of school youth & existing workers especially in the informal sector). Most of the existing Skill Development programmes are long term in nature. This was essential considering their educational, social and economical background. Poor and less educated persons can not afford long term training programmes due to higher entry qualifications, opportunity cost etc. Therefore, a new framework for Skill Development for the Informal Sector has been evolved by the DGET to address to the above mentioned problems. The **key features of the new frame work for skill development** are:

- ◆ Demand driven Short term training courses based on **modular employable skills** decided in consultation with Industry
- ◆ Flexible delivery mechanism (part time, weekends, full time)
- ◆ Different levels of programmes (Foundation level as well as skill upgradation) to meet demands of various target groups
- ◆ Training to be provided by Vocational Training (VT) Providers under the Govt., Private Sector and Industrial establishments.
- ◆ Optimum utilisation of existing infrastructure to make training cost effective.
- ◆ Testing of skills of trainees by independent assessing bodies who would not be involved in conduct of the training programme, to ensure that it is done impartially.
- ◆ Testing & certification of prior learning (skills of persons acquired informally)
- ◆ The essence of the scheme is in the certification that will be nationally recognised by both the government agencies and industry/trade organisations.

The Short Term courses would be based on ‘Modular Employable Skills (MES)’.

The **concept for the MES** is :

- Identification of ‘minimum skills set’ which is sufficient to get an employment in the labour market.
- It allows skills upgradation, multiskilling, multi entry and exit, vertical mobility and life long learning opportunities in a flexible manner.
- It also allows recognition of prior learning (certification of skills acquired informally) effectively.
- The modules in a sector when grouped together could lead to a qualification equivalent to National Trade Certificate or higher.
- Courses could be available from level 1 to level 3 in different vocations depending upon the need of the employer organisations.
- MES would benefit different target groups like :
  - Workers seeking certification of their skills acquired informally
  - workers and ITI graduates seeking skill upgradation
  - early school drop-outs and unemployed

#### **4.2.3 Target Group**

<b>Sl No.</b>	<b>Target Group</b>	<b>Training</b>		<b>Testing &amp; Certification of Competencies</b>
		<b>Skill acquisition</b>	<b>Skill up-gradation</b>	
1	Less educated/Out of school youth/unemployed/ persons without employable skills	✓		✓
2	Workers who have acquired skills informally		✓	✓
				✓
3	ITI graduates		✓	✓

#### **4.2.4 *Benefits of the MES***

##### *For the Individuals*

- Better employability & mobility
- Higher productivity, wages and less exploitation
- Identity, improved social status & Pride
- Easier to get loans for self-employment from various financial institutions

##### *For the Employers*

- Improved Quality & Productivity
- Less downtime
- Compliance with Quality Assurance systems like ISO
- Availability of skilled workforce helps in getting export orders

##### *For the Society & the country*

- Reduction in poverty
- Social harmony & peace
- Higher GDP

#### **4.2.5 *Curriculum Development Process***

Following procedure is used for developing course curricula

- Identification of Employable Skills set in a sector based on division of work in the labour market.
- Development of training modules corresponding to skills set identified so as to provide training for specific & fit for purpose
- Organisation of modules into a Course Matrix indicating vertical and horizontal mobility. The course matrix depicts pictorially relation among various modules, pre-requisites for higher level modules and how one can progress from one level to another.
- Development of detailed curriculum and vetting by a trade/ expert committee

- Approval of the curricula by the NCVT

(Close involvement of Employers Organisations, State Governments, experts, vocational training providers and other stake holders is ensured at each stage).

- DGET has started development of curriculum for short term courses in association with Employers Organisations, State Governments, experts, vocational training providers etc. So far, curricula for 118 courses have been developed.
  - List of sectors for which development of curricula has been undertaken is given in Annex-III
  - List of Curricula approved by a trade committee are placed on website for comments of various stakeholders/ experts before seeking approval of the NCVT is given in Annex-V
  - Curricula approved by the NCVT are given in Annex-IV

#### ***4.2.6 Duration of the Programmes***

Time taken to gain the qualification will vary according to the pathway taken and will be kept very flexible for persons with different background and experience. Normal duration statements may appear in training programmes which may be based on the content and requirements of a MES module.

#### ***4.2.7 Pathways to acquire Qualification:***

**Access to** the qualification could be through:

An approved training programme;

**Or**

A combination of an approved training programme plus recognition of prior learning including credit transfer;

**Or**

The recognition of prior learning that provides evidence of the achievement of the competencies for the qualification.

## **Training**

- DGET will facilitate training by providing curricula, learning material, training of trainers & assessors
- Training can be provided by any training & educational institution, industry, NGOs etc.
- ITIs /ITCs will have flexibility to run Short Term Courses by optimum utilisation of available infrastructure to make training cost effective
- Training will be imparted by adopting flexible delivery mechanism (part time, weekends, full time) to suit the needs of various target groups

### ***4.2.8 Testing & Certification***

- Testing of skills of trainees by independent assessing bodies who would not be involved in conduct of the training programme, to ensure impartially.
- NCVT certificate to the successful persons would be awarded

### ***4.2.9 Monitoring***

- Web based MIS is being developed by Mphasis, a leading IT company with support of an Indian Institute for Information Technology (IIIT), Bangalore. First phase of the software comprising candidate registration, MES registration etc. has been completed.
- All information about MES programme will be available through website
- DGE&T will implement and monitor the scheme through six Regional Directorate of Apprenticeship Training (RDATs), which will act as its regional offices. Project cells at the National and Regional level will be created to manage this huge programme.
- Ratings to be awarded to the VT providers and assessing bodies

### **4.3 Skill Development Initiative through Public Private Partnership**

Hon'ble Finance Minister during the budget speech 2005-06 had made the following announcement:

“ To meet the demand for specific skills of a high order, a Public Private Partnership between Government and industry is proposed to promote skills development programme under the name ‘ Skill Development initiative’. Details of the scheme will be worked out and announced shortly”.

In pursuance of Hon'ble Finance Minister announcement, DGE&T undertook development of a new strategic framework for skill development for the school drop-outs and existing workers especially in the informal sector in close consultation with Industry, micro enterprises in the informal sector, State Governments, experts, academia. This was essential considering their educational, social and economical background. This scheme would primarily use the concept developed under the MES programme. The key difference is in terms of funding. Under this scheme, a provision of Rs 555 crore has been made to fund the activities. On an average Rs 5000/- per person would be provided from this scheme for training, testing & certification of the skills of the persons. Detailed project report prepared for giving financial assistance to VT providers and assessing bodies wherever financial assistance was needed. Planning Commission has granted ‘in – principle’ approval to it. Draft EFC memo has been circulated to concerned Ministries/ departments after concurrence of the IFD.

### **4.4 Demand driven training:**

In order to keep pace with technological changes taking place in the industry and to make training demand driven following initiatives have been taken by DGE&T:

- Efforts are made to update /revise curricula of courses offered by DGE&T regularly in consultation with the industry and State/UT Governments to ensure that training is aligned to market needs.
- During the last three years 47 new employable trades with duration varying from 6 months to two years have been brought under the purview of CTS . All the

State Governments have been requested to introduce these trades as per their need by creating necessary infrastructural facilities..

- Also thirteen new trades in informal sector have been introduced under Apprenticeship Training Scheme.
- Curricula of various trades are revised regularly to take care of technological changes taking place in the industry. Course curricula of 44 trades under CTS and 43 trades under ATS have been revised during 1997-2003 .
- Twenty one unpopular trades have been deleted from the purview of CTS & ATS from 1997 to 2005.
- 172 modules have been introduced under CoE Programme.

#### **4.5 Testing & Certification of skills acquired through non formal means**

- DGE&T has taken up a scheme for testing and certification of skills acquired through non- formal means.
- The scheme is being implemented initially on a pilot basis.
- Competency based skill standards have already been developed for 46 skill areas.
- Construction Industry Development Council (CIDC) and National Academy of Construction (NAC), Hyderabad have been identified by DGE&T, Ministry of Labour and Employment as Apex bodies for carrying out the testing and certification of workers related to construction sector.
- Cane & Bamboo Technology Centre (CBTC), Guwahati has been identified as the apex body for Testing & Certification of Skills of Workers in the area of Bamboo Technology.
- Apart from CIDC and NAC, Hyderabad, the scheme is already under implementation by other State Directorates viz. Punjab, Kerala, Tamil Nadu and Jammu and Kashmir and Orissa.



## 4.6 Upgradation of 500 ITIs into Centres of Excellence

### 4.6.1 Upgradation of 100 ITIs

- Union Finance Minister in his Budget Speech 2004-05 had announced measures for upgradation of 500 ITIs in the country. Subsequently, as per the advice of M/o Finance, action has been initiated for upgradation of 100 ITIs from domestic resources and 400 ITIs through World Bank assistance. To start with in the year 2005-2006, 100 ITIs to be upgraded from domestic resources have been distributed in 26 States/UTs (other than J&K, Sikkim and NE States) in proportion to the number of Government ITIs in these States.
- This scheme of upgradation of 100 ITIs is within the total cost of Rs 160 crores. Out of this total of Rs 160 crores, Central share is Rs 120 crores (75% of the total cost, remaining 25% being shared by State Governments). The breakup of Rs 1.60 crore being spent on one ITI is as follows with provisions of some flexibility:
  - ☞ Civil works (Rs 40 lakh /CoE)
  - ☞ Procurement of equipment (Rs 75 lakh /CoE)
  - ☞ Other expenditure (Rs 45 lakh/CoE)
    - Honorarium for contract/guest faculty, as well as payment of Honorarium to existing staff wherever required
    - Technical assistance for training of trainers and management personnel
    - Misc. expenditure towards curriculum development, procurement of raw material, Office expenses.
- The objective of the scheme is to upgrade the existing 100 ITIs into “Centers of Excellence (CoE)” for producing multi skilled workforce of world standard. The highlights of the scheme are introduction of multiskilling courses during the first year, followed by advanced/specialized modular courses subsequently by adopting industry wise cluster approach, multi entry and multi exit provisions, and Public-Private-Partnership in the form of IMC to ensure greater & active involvement of industry in all aspects of training.

- The Expenditure Finance Committee recommended the scheme in its meeting held on 15th Feb 2005. Also, CCEA in its meeting held on 16th March 2005, approved the scheme.
- The Curricula for the various training courses have been developed with active involvement of industry. Curricula of 192 modules have been developed and are available on the DGE&T, MoLE web- site <http://dget.nic.in/coe/main/Index.htm>
- Training courses as per this new pattern in 83 ITIs have already commenced during the FY 2005-06 and remaining 13 ITIs have commenced from August 2006, whereas 4 ITIs(located one each at A&N Island , Dadar & Nagar Haveli, Daman and Lakshadweep where major facilities are to be created before start of training) are likely to start from Feb 2007/ August 2007) .

#### **4.6.2 Upgradation of 400 more ITIs with World Bank assistance**

- For the remaining 400 ITIs to be upgraded with World Bank assistance, we are currently in dialogue with World Bank reps. They have agreed in principle to provide retroactive financing for taking up 100 ITIs in the current FY 2006-07, even before signing of the Project agreement, so as to enable these ITIs to start training from August 2006. Remaining 300 ITIs would be taken up for upgradation in subsequent years.
- An All-India seminar was held on 22-23<sup>rd</sup> June 2006 at Mahatma Gandhi Labour Institute(MGLI), Ahmedabad, for reviewing State wise performance of the 100 ITIs already taken up in 2005-2006 and to identify 100 ITIs to be taken up for upgradation with the assistance of World Bank during the year 2006-07. Officials from 27 States/UTs participated in the Seminar. The participants included reps. of World Bank, CII, FICCI & Planning Commission apart from State Secretaries / State Directors and selected Principals and IMC Chairmen of various ITIs. The participants carried back with them the success stories as projected by various States, which included involvement of industry/industry association in upgradation of ITIs for replicating it in their States.
- 100 ITIs to be taken up with World Bank assistance has been allocated in 23 States including J&K, NE States and Sikkim based upon their performance in

implementing scheme for upgradation of 100 ITIs with domestic resources, number of existing Government ITIs in the State and their readiness to start training from August 2006.

#### **4.7 Short Term Training Courses in ITIs/ITCs by optimally utilising existing infrastructure**

The largest share of new jobs in India is supposed to come from the unorganized sector that employs up to 93 per cent of the national workforce. Further, growth of employment in the organised sector is shrinking and majority of the employment is taking place in the informal sector.

In our country, large number of students drop out before 8th standard. Very few opportunities for skill development are available for this target group. Besides, there are large numbers of persons who have acquired skills informally but do not have a formal certificate. While their productivity may be low, their contribution to the national GDP cannot be ignored. If the country can create a system of certification which not only recognizes their skills but also make them eligible for further education and training in a mode that suits their economic compulsions, it will not only benefit the workforce to earn a decent living but also contribute to the national economy by better productivity of this workforce and reduction in downtime.

In view of above, a scheme 'Short Term Training Courses in ITIs/ITCs by optimally utilising existing infrastructure' has been evolved to meet the growing demand for skill training, testing & certification. One of the strategies is to improve the efficiency of the vocational training programmes by optimal utilisation of available infrastructure in ITIs since expansion of the programmes for skill development requires substantial investments.

Some of the salient features of these courses are as under:

1. Demand driven short term training courses as per local needs
2. Modular Employable Skills (MES) i.e., system will be modular; credit based and will allow multi-point entry and exit.

3. Flexibility to the ITIs in conducting a combination of long term and short term training courses by optimally utilising available infrastructure to make training cost effective.
4. Flexible delivery mechanism (part time, weekends, full time, modular programme)
5. Different levels of programmes (level 1 to level 3) to meet demands of various target groups
6. The services of existing or retired faculty or guest faculty to be utilised
7. Training course will be self- financing and self- sustainable. Recurring training cost to be recovered from fees/job work
8. Involvement of employer organisations in the design and implementation of this scheme.

#### ***4.7.1 Methodology for optimal utilisation of Infrastructure in ITIs/ITCs***

Craftsmen Training in ITIs/ITCs is quite expensive as huge infrastructure (especially building & equipments) is required. The fast obsolescence of equipment due to changes in technology is another factor for high cost of the training. Further, machinery and equipments are generally under-utilised resulting in high cost of training and low efficiency. Therefore, optimal utilisation of infrastructure will reduce cost of training. Limited resources available coupled with high cost of training have hindered fast growth of Craftsmen Training in India. Therefore, training institutes should operate various training programmes in such a manner so as to ensure optimal utilisation of the infrastructure. This way, significantly more number of persons can be trained with the available resources.

#### **How the better utilisation of equipment can be done**

Practical training in ITIs/ITCs is conducted for about 4.5 hours per unit per day. This implies that if only 1 unit of a trade is running, the utilisation of equipment of that trade is only for 4-5 hours per day. If two units are running then utilisation is for about 9 hours a day. Few ITIs/ITCs have 3<sup>rd</sup> shift. In such ITIs/Trades, utilisation of infrastructure is better. But all the trades in an ITI do not have third shift or even second unit. So there is scope for expanding training output by better utilisation of available training infrastructure.

An ITI/ITC should run training programmes for at least 10-12 hours per day. Short term training programmes with flexible delivery mechanism (part-time, weekends, full-time, modular) can be started in the ITIs/ITCs depending upon the idle status of equipment and other infrastructure facilities.

Following options that can be considered for better utilisation of equipment and training of more number of trainees are given in Annex-II .

#### **4.8 Vertical mobility for passed out from vocational stream**

It has been observed that the school leavers were reluctant to join vocational education and training courses as these were considered terminal in nature and as such they were not eligible to enhance their qualification. Therefore efforts were made to develop linkages with other departments to ensure vertical mobility for the pass outs of the vocational courses so as to motivate them to opt for these courses rather than going for higher general education courses.

The above issue was considered by All India Board of Vocational Education and by All India council of Technical Education in Sept. 2003 and following decisions were taken.

- There should be vertical mobility for ITI pass-outs and 10+2(vocational students)
- If these pass-outs have not taken Physics/Chemistry/Mathematics (PCM), even then they should be permitted for the entrance test provided they compete with PCM at the entrance test.
- The ITI students and the 10+2 vocational students would be permitted to join the 2<sup>nd</sup> year at diploma level, but they will have to complete the subjects of the diploma level that they have not taken at the ITI or the +2 level. The respective Board of Technical Education of the state will have to ensure that the polytechnics arrange extra classes and allow them to sit for exams.

However, the AIB-VE recommends that only those students who secure 60% at the 10+2 stage or at the ITI would be eligible for consideration for lateral entry.

- The number of students eligible for lateral entry would be 10% above the total sanctioned strength.
- Linkage between courses will have to be worked out by the respective state boards of Technical Education.

## **5 Issues for Skill Development**

The NSSO employment Survey Reports have shown low unemployment rates in India. However, these surveys also show that while many people are doing more than one job at a time, a lot many may be underemployed as they are in the look out for a better job. If we categorize them under “disguised unemployment” and add their numbers to the completely unemployed, then the magnitude of the problem is properly appreciated. This leads to the following hypothesis:

- The poor cannot afford to be unemployed; hence their unemployment rate is low.
- It is not jobs, but low productivity that is the problem.

The supply of unskilled labour is very high, and on account of being unskilled, the wages they can demand are very low. On the other hand, the World Bank “Doing Business” survey shows; the demand in India for specific skills is very high, and often unmet. For instance, in spite of the boom in the construction sector, simple skills like waterproofing, fencing or scaffolding are in short supply, highlighting the gap between demand and supply.

Some of the problems that need to be addressed on priority are:

### ***5.1 Lower percentage of skilled persons in the workforce***

The skill level and educational attainment of the work force determines the productivity as well as the adaptability of the working class in changing environment. Majority of workforce both present & potential do not possess requisite skills and need to undergo training. Only 5% of the Indian labour force in the age group of 20-24 has received vocational training whereas the percentage in industrialised countries is much higher, varying between 60% and 80%. The illiterate and literate up to primary level of education constitute a very high proportion of the existing work force, the two together account for nearly 67% of the work force. While on the one hand the level of educational attainment of the existing work force is very low, the educated without professional skills on the other hand constitute 69% of the total unemployed. A major reason is that system is excessively oriented towards general academic education with little or no vocational orientation.

### ***5.2 Lower Labour Productivity***

The overall labour productivity in India is much lower (\$ 5.45 per person per hour while the figure for Mexico is \$ 20.51).

### ***5.3 Large %age of population living below poverty line***

As per NSSO survey, large number of workers (around 125 million out of 397 million working population) are living below the poverty line.

### ***5.4 Demand for vocational training from school drop-outs***

Over 200 million students enroll for schools in Class I each year, but only 20 million of these are able to finish Class XII i.e. 90 % of the school students drop out at different stages. Only 2.5 to 3 million vocational education and training places are available in the country. Out of these, very few places are for early school dropouts. This signifies that a large number of school drop- out do not have the necessary education and skills to be productively employed in the industry.

### ***5.5 Need to focus on the skills for the informal sector***

The largest share of new jobs in India is supposed to come from the unorganised sector that employs up to 93 per cent of the national workforce and produces 60 per cent of GDP. Since small and micro enterprises are supposed to play a central role in the national employment creation strategy, they should be

assisted in development of skills. The formal skill training system, because of its educational entry requirements and long duration of courses, is basically not designed to offer skills to the low-educated people.

### **5.6 Training for Specific and Fit-for-Purpose Skill Sets**

It has been viewed that there is a great need for employability and outcome based training courses and delivery. Today we find that a lot of jobs that are available in the market do not require two-three year courses. For a lot of entry level jobs across industries the skills required warrant merely focused short duration courses. Modular structure of short courses allows a professional to upgrade his skills without compromising on his earning capacity for undergoing a long duration training programme and provides him with the flexibility to acquire this at his convenience.

### **5.7 Limited facilities for skill development**

Facilities to impart skill development programmes for about 3 million persons per annum exist in the country whereas the total labour force is about 400 million. Every year 7 to 8 million labour force enters the market. Majority of it has not undergone skill development programmes.

## **6 PRIORITY AREAS FOR XI PLAN**

Above mentioned issues and other problems led members to decide priority areas for the XI plan. Their concerns were mainly :

- Identify emerging requirements of training
- Increasing number of persons trained every year
- Improving effectiveness, efficiency and relevance of training
- Facilities for life long learning
- Skill development needs of the unorganised sector
- Training of Instructors / Trainers.

Members recommended following priority areas for the XI Plan:



## 6.1 To address skill development needs of the un-organized sector

Policy framework for the un-organized sector may be developed in conjunction with stakeholders across different ministries, the private and NGO sectors. Expertise available with International Organisations should be utilised. This may outline strategies to stimulate training for the unorganized sector with a realistic timeframe for implementation.

## 6.2 Introduction of short term courses in ITIs

Introduce short term courses in ITIs for school drop-outs, unorganised sector workers and school graduates who do not want to pursue the long term courses for various reasons like eligibility criteria, opportunity cost etc. This would also enable facilities for the Life-long learning and continuous upgradation of skills. In this regard, initiative taken by the DGE&T needs to be fully supported. Under the short term courses, **more than 1 million persons** can be trained every year in the existing ITIs and other institutions. Since a highly flexible training delivery format is required, quality of training can go down easily if the stringent monitoring and regulatory mechanism are not in place. This is an area of concern at present organisational set up and systems for Craftsmen Training are highly inadequate and outdated. Dedicated and exclusive monitoring set up, trade testing system, curricula development system, standards development system etc. would be required. If these systems and organizational framework required are not set up under the premise of economy measures, it would be prudent not to run short term courses.

State Governments who have administrative control of the ITIs should take necessary measures for starting courses in ITIs. The optimal utilization of available infrastructure in the ITIs by running short term courses would reduce cost of training and more number of persons would be trained. Rather, central funding to the ITIs (upgradation of ITIs in to Centre of Excellence and other schemes) could also be used as an incentive to encourage States and ITIs to run short term courses in spare time.

### **6.3 Capacity Building and motivation of persons & trainers in VT system**

Training is a part of service sector. Human resources are the most important resources of service sector. Companies in the service sector give great attention to have motivated employees by way of providing better remuneration, incentives, career prospects and self development. Unfortunately least attention has been paid to development and motivation of human resources at all levels from DGE&T to the ITIs.

- Career prospects are poor- people stagnate at lower levels
- No incentives
- No training and development plans – with the result, most persons in the system (from planners to developers to trainers to assessors) lack competencies required to perform tasks. We are talking about world class standards for the trainees – how it is possible in such a scenario.

Spending thousands of crore of rupees for buying World Class equipment and setting up institutions would be a waste without having world class persons to assess labour market demands, plan programmes, develop curricula, standards, learning materials, impart training, assess competencies, monitor and evaluate the outcome. Having a motivated team is also equally important so that persons perform to the best of their abilities. So, provide good career development (have a cadre for officers and trainers in the DGE&T on the pattern of scientific services and similarly for trainers in the ITIs), incentive systems and compensation packages with the best in Industry so as to attract & retain good qualified and experienced persons from industry. Equally important is to fill all the posts, especially instructional posts immediately. Shortage of manpower is one of the biggest factors which are adversely affecting quality of the training. DGE&T office, its institutes and ITIs should be excluded from the exercise of downsizing of manpower. Physical infrastructure development without having sufficient numbers of competent and motivated trainers would be of no use.

**6.4 Expansion of DGET support institutions providing services like research, learning material, training of trainers, monitoring and evaluation**

**6.5 Developing courses for new emerging areas including services sector**

**6.6 To provide greater autonomy to the ITIs and introduce the accountability framework. Strengthening of linkages between ITIs and the local Industrial units**

**6.7 Financing of the Vocational Training**

A dedicated fund for Skill development is needed. Reform the ITIs' funding mechanism through the introduction of enrolment – based funding enabling to link public finding to performance and outputs of training institutes

**6.8 Reform the national vocational qualifications framework and address the problem of skills recognition though the introduction of:**

- a) competence-based vocational qualifications,
- b) practices allowing to test and certify skills of workers that have been acquired through practical experience, and
- c) modular-based vocational programmes

In this regard, the Modular Employable Skills (MES) programme initiated by the DGE&T is laudable. It is highly challenging as hardly any organization in India have the required capability to test the competencies of persons across the nation. Therefore, support systems need to be developed urgently so that the concept can be implemented in the right earnest. This programme holds promise to reform the existing system and would be answer to many of the present problems. It can fit into national vocational qualifications framework. Planning Commission and other stakeholders should provide full support and necessary resources for this programme.

**6.9 Adoption of new modern training technologies including multi-media**

**6.10 Focus on improving opportunities for women, disabled and other disadvantaged groups in vocational training**

**6.11 Public-Private Partnership in Skill Development**

**6.12 Management Information System for Skill Development. There is a dire need to establish a Centre of Management Information System both at the Centre & State levels.**

**7 SCHEMES RECOMMENDED FOR THE XI PLAN**

The schemes recommended by the working group for the next plan period have been categorized into the following three categories:

- New Plan Schemes proposed
- Strengthening and continuation of recent initiatives/ Plan Schemes
- Continuation of on-going plan schemes

**7.1 New Plan Scheme proposed**

**Quantitative and Qualitative improvement of Vocational Training**

The scheme will have two major components, which will have further sub-components as mentioned below:

- **Quantitative improvement of Vocational Training**
- **Qualitative improvement of Vocational Training**

**Quantitative improvement of Vocational Training**

***7.1.1 Setting up of 1500 new ITIs in the blocks having no ITIs at present.***

There are about 6500 blocks in the country and about 5000 ITIs are already functioning. Number of ITIs / Mini ITIs to be added during the 11th Plan Period is 1500 (Appx.).

500 ITIs / Mini ITIs will be for Disadvantaged Group like SC/ST, Minority, Physically Handicapped & Women and will run on the Pattern of NAVODAYA VIDYALAYA. These ITIs will have seating capacity of 100 each with a total capacity of **1,50,000**. The estimated cost would be **Rs.7500 crore**.

#### ***7.1.2 Setting up of 12RVTIs***

Only 10 States have an RVTI for women. It is proposed to set up one RVTI each in 12 additional States i.e. in Andhra Pradesh, Tamilnadu, Uttranchal, Chattisgarh, Chandigarh, Delhi, Bihar, Jharkhand, Himachal Pradesh, Orissa, Assam & J&K. These RVTIs will have seating capacity of 500 each and total seats available would be **6,000**. The estimated cost would be **Rs. 120 crore**.

#### ***7.1.3 Setting up of 11 ATIs***

Only 6 States have an ATI. It is proposed to set up one ATI each in 11 additional States One ATI in 11 States i.e. in Gujarat, Madhya Pradesh, Orissa, Bihar, Rajasthan, Haryana, Goa, Kerala, Chattisgarh, Assam & Delhi. These ATIs will have seating capacity of 2000 each and total seats available would be **22,000**. The estimated cost would be **Rs. 550 crore**

#### ***7.1.4 Setting up of an Apex Institute for Skill Building in informal sector***

An Apex Institute for Skill Building in informal sector is needed, especially for testing and certificating in the area of construction, Brass ware, Glass Work, fisheries, Khadi etc. with a capacity output of **2,50,000**. This would also help in qualitative improvement in the skill development for the informal sector. The estimated cost would be **Rs. 34 crore**.

#### ***7.1.5 Setting up of 4 Institutes for Training of Trainers***

One institute for Training of Trainers in each zone would be set up i.e. in North, South, West & Centre. These Institutes will have seating capacity of 1000 each and total seating capacity of **4,000 seats**. The estimated cost would be **Rs. 100 crore**

***7.1.6 One National Open School for Vocational Training having total seating capacity of around 1,50,000***

Adoption of new training delivery mechanisms (like e- learning) would help in expanding training capacity in a cost effective manner as well as would serve the varying needs of different target groups. One National Open School for Vocational Training having total seating capacity of around **1,50,000** would be set up. Modern training technologies based on video conferencing, e-learning etc. would be available. The estimated cost would be **Rs. 40 crore**.

Total additional seating capacity generated with setting up of proposed Institutes will be around **5,82,000**.

**QUALITATIVE IMPROVEMENT**

Strengthening of the training support services is absolutely essential for qualitative improvement of the vocational training. In this regard, it is proposed to set up or strengthen the following institutions:

***7.1.7 One NIMI in Northern India in NCR of Delhi***

National Instructional Media Institute, Chennai is engaged in development of instructional material for various Vocational Training Programmes. So far it is not able to develop instructional material all the trades under Craftsmen Training Scheme (CTS) and Apprenticeship Training Scheme(ATS). Even the material developed so far could not be translated in the local languages. Now with starting of modular courses under Centre of Excellence( CoE) Programme and Modular Employable Skill (MES) Programme, instructional material is required for these programme also. NIMI, Chennai would not be able to do all the works. Therefore, it is proposed to set up one more NIMI in the NCR Region specifically to develop instructional media for CoE and MES Programmes and translating the material into local languages . The estimated cost would be **Rs. 25 crore**.

**7.1.8 National Institute for skill inventory & skill building to remove mismatch.**

National Institute for Skill Inventory & Skill building is needed to assess the labour market demands. With the extraordinary fast changing technology the curricula and skill areas need to be reviewed regularly to assess the obsolescence and for starting training programmes in new areas. The institute will be responsible for assessing manpower needs through survey studies and maintain close link between industry and training institutions as well as employment organizations so as to bridge the gap between demand and supply. The estimated cost would be **Rs. 25 crore**.

**7.1.9 Strengthening of RDATs for informal sector**

Hon'ble Finance Minister during the budget speech 2005-06 had made the following announcements:

“ To meet the demand for specific skills of a high order, a Public Private Partnership between Government and industry is proposed to promote skills development programme under the name ‘ Skill Development initiative’. Details of the scheme will be worked out and announced shortly”.

In pursuance of Hon'ble Finance Minister announcement, DGE&T undertook development of a new strategic framework for skill development for the school drop-outs and existing workers especially in the informal sector. This scheme involves a new strategic framework for Skill Development in view of the distinct educational, social and economical background of the target group (early school drop-outs and existing workers especially in the informal sector). A highly flexible and decentralized approach is needed. Short term training courses based on modular employable skills would be conducted in flexible time to suit individual's needs by optimal utilization of infrastructure available with thousands of Vocational Training (VT) Providers under the Govt., Private Sector and Industrial establishments spread through out the country. The testing of skills would be done by independent assessing bodies through a network of testing centres. Strict monitoring of these bodies would also be required. The government's role primarily is of regulating, monitoring, evaluating, and controlling the quality of training while the actual implementers are likely to be in private sector. Ensuring quality of training, testing & certification would be a big challenge. Equally big challenge would be preventing misuse of funds. Records of million of persons trained and certified would have to

be maintained. Certificates to these persons have to be issued. Training of thousands of trainers, assessors and other key staff would have to be organised. Studies have to be conducted at regular intervals. Then there would be issues like maintaining and developing new competency standards. In view of the gigantic task, it is proposed to strengthen Regional Directorate of Apprenticeship Training (RDAT) by setting up exclusive Cells for the Informal Sector. The estimated cost would be **Rs. 30 crore.**

#### ***7.1.10 Establishment of Directorate for Certification, Standardisation and Quality***

##### ***Control.***

The existing section of DGET dealing with quality aspect of vocational training has been in operation since early 60s when there were about 100 ITIs. With the number of ITIs rising to more than 4200, the section is not able to cope with the attendant problems. In order to enhance the quality of output and introduce new innovative thrust in the training system, ensure curricular relevance to job requirements and periodical inspection of all ITIs/ITCs in the country, a Directorate of Certification, Standardisation and Quality Control is to be set up at DGE&T Hqrs.

The Directorate will have three Wings with broad functions as under:

*Policy Planning Wing:* This Wing will frame policies with regard to courses, norms and standards, staff development norms, introduction of curriculum changes, industry institutes joint ventures etc.

*Curriculum Development Wing:* The implementation of CTS and ATS besides other factors is highly dependent upon updated curricula so that these are tuned to the current requirements. The existing set up at DGE&T HQ for developing curricula is inadequate to cope up with the work load. It is, therefore, intended that a structured mechanism with Standing Trade Committees having experts from industry and their continuance for a reasonable period of time be set up. The suggested curriculum wing would be provide the necessary ministerial and administrative support for periodical development of curricula.

*Quality Assurance Wing:* This wing will ensure that all the institutions in the country are inspected periodically after affiliation is granted and the deficiencies in these institutions are made up from time to time based on such inspections.

***Estimated cost is Rs 10 crore.***



#### ***7.1.11 Establishment of National Trade Testing & Certification Authority***

The present Trade Testing Cell (TT Cell) at DGE&T Headquarters established in 1950s is unable to cope with the workload relating to conducting of 28 All India Trade Tests annually under the aegis of National Council for Vocational Training (NCVT) It is outdated as compared to modern facilities available in bodies carrying out similar functions. The system practically has not undergone any significant changes during last four decades despite large scale expansion of institutions. Due to large number of trade testing centers, it is becoming extremely difficult for TT Cell to coordinate effectively all the trade tests. It is, therefore, imperative that a separate National Trade Testing and Certification Board is established with regional set up to discharge the prime function of trade testing effectively.

Under the Scheme, a National Trade Testing and Certification Board would be set up at Delhi and regional boards would be established at suitable locations.

- Modern technologies for trade testing would be adopted
- Certificate would be issued without any delay after each trade test
- Proper monitoring of the trade test results would be done to take remedial action for overall improvement in the system.

Estimated Cost is **Rs 10 crore.**

#### **Other important components for qualitative improvement of vocational training**

##### ***7.1.12 Participation of India in World Skills Competition***

Estimated Cost is Rs 5 crore.

##### ***7.1.13 Setting up of National Mission for Skills***

Estimated Cost is Rs 10 crore.

##### ***7.1.14 Construction of Institute Buildings Staff Quarters and Hostel Building for Field Institute under DGE&T***

Estimated Cost is Rs 50 crore.

##### ***7.1.15 Construction of additional buildings for NVTI/ RVTIs***

Estimated Cost is Rs 10 crore.

**7.1.16 Non-formal training for women follow- up of ILO project ' Decent Employment for NVTI/ RVTIs'**

Estimated Cost is Rs 2 crore.

**7.2 Strengthening and continuation of recent initiatives/ Plan Schemes**

**7.2.1 Skill Development Initiative with Public Private Partnership**

**7.2.2 Upgradation of 500 ITIs in to CoE**

**7.3 Continuation on-going plan schemes**

The list of the schemes along with proposed outlays are given in the following table:

**7.4 Schemes for XI plan with Financial Outlay**

(Figures in Rupees in lakhs)

S.N.	Name of the New scheme	Financial Outlay
1.	<p>Quantitative and Qualitative improvement of Vocational Training</p> <p><b><u>Quantitative Improvement</u></b></p> <ul style="list-style-type: none"> <li>• <i>Setting up of 1500 new ITIs in the blocks having no ITIs at present. Out of which, 500 for disadvantaged group on Navodaya Vidyalaya Pattern</i></li> <li>• <i>Setting up of 12RVTIs in the States where there is no RVTI</i></li> <li>• <i>Setting up of 11 ATIs in the States where there is no ATI</i></li> <li>• <i>Setting up of an Apex Institute for Skill Building in informal sector</i></li> <li>• <i>Setting up of 4 Institutes for Training of Trainers- one in each zone</i></li> <li>• <i>One National Open School for Vocational Training having total seating capacity of around 1,50,000 on learning basis</i></li> </ul> <p><b><u>Qualitative Improvement</u></b></p> <ul style="list-style-type: none"> <li>• <i>One NIMI in Northern India in NCR of Delhi.</i></li> <li>• <i>National Institute for skill inventory &amp; skill building to remove mismatch.</i></li> </ul>	852100

S.N.	Name of the New scheme	Financial Outlay
	<ul style="list-style-type: none"> <li>• <i>Strengthening of RDATs for training in informal sector</i></li> <li>• <i>Establishment of Directorate for Certification, Standardisation and Quality Control.</i></li> <li>• <i>Establishment of National Trade Testing &amp; Certification Authority</i></li> <li>• <i>Participation of India in World Skills Competition</i></li> <li>• <i>Setting up of National Mission for Skills</i></li> <li>• <i>Construction of Institute Buildings Staff Quarters and Hostel Building for Field Institute under DGE&amp;T</i></li> <li>• <i>Construction of additional buildings for NVTI/ RVTIs</i></li> <li>• <i>Non-formal training for women follow- up of ILO project 'Decent Employment for NVTI/ RVTIs'</i></li> </ul>	

#### 7.5 Plan Schemes to be continued with Financial Outlay

(Figures in Rs. in lakh)

S.No.	Name of the Scheme	XIth Plan Proposed Out Lay
1	Establishment of National Instructional Media Institute, Chennai.	1300
2	Establishment of RDATs at Hyderabad & Faridabad.	850
3	Enhancement of RI Charges (Rs. 10 to Rs.30)	250
4	Setting up of Basic Training Centre at Kanpur.	50
5	Diversification & Expansion of Vocatoional Training for Women	2250
6	Setting up of Foremen Training Institutes at Jamshedpur and Banglore.	600
7	Setting up of 4 Model Industrial Trainig Institutes(MITIs)	1000
8	Setting up /Strengthening of Advanced Trainign Institutes at Chennai, Dehradun and Regional Maintenance Centres in 6 ATIs includes : Modernisation and Expansion of Instructor Trainig Programme at 5 ATIs and CTI, Chennai, Setting up ATI-Epi Dehradun, AVTS Phase - II and Setting up of RMS Centres in 6 ATIs.	2200
9	Strengthening of NVTs & Formation of AICVT	30
10	Technical Assistance Programme	320

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11	Introduction of Hi-Tech Training	800
12	Management Information System	20
13	Upgrading Training Infrastructure in DGE&T Institutes and Construction of building for CSTARI Staff.	1700
14	Central Project Implementation Unit (Over All Direction and Administration)	200
15	Media Resource Centres	250
16	Trade Testing & Certification at DGE&T Hqrs.	70
17	Building Equipment & Establishment for RVTIs (Calcutta, Hissar, Allahabad, Indore, Bhubhaneswar, Vadodara, Jaipur and Tura)	3600
	<b>Total</b>	<b>15490</b>
<b>CENTRALLY SPONSORED SCHEMES</b>		
1	Establishment of new ITIs in NE States and Sikkim to the State of Jammu & Kashmir	7560
2	Skill Development Initiative with Public & Private Partnership	54500
3	Upgradation of 400 ITIs as CoE	150000
4	Upgradation of 100 ITIs as CoE	15000
5	Testng and Certification of Skill of workers in Informal Sector.	450
	<b>Total</b>	<b>227510</b>

**Outlay required for `On-going Plan Schemes` during 11<sup>th</sup> Plan – Rs. 2430 crore**

**Outlay required for proposed `New Scheme` during 11<sup>th</sup> Plan – Rs. 8521 crore**

**Total outlay required for DGET during 11<sup>th</sup> Plan – Rs. 10951 crore**

### **Suggested Models for Public Private Partnership in ITIs**

#### **Optional Model One – Consultancy plus support**

This model is suitable for institutions that work in an environment that does not provide much flexibility and where there are numerous constraints. This model entails a greater level of involvement through various activities as the following –

- Train the Trainer
- Train the Assessors
- Syllabus Assessment
- Quality Assurance Support

#### **Optional Model Two – Centre approval and assessment services**

This model is suitable for institutions that are committed to bring about structural changes in the way these operate. Institutions those are willing to introduce and implement discontinuous change for quantum leaps in benefits. The objective of this model is to introduce structures and systems that in addition to internal checks provide for an independent unbiased system of external quality checks. In this model internationally benchmarked practices would be introduced and there would be a build up of personnel who would then become competent over a period of time to support this structure. This is over a greater period of time and entails even greater levels of involvement on an ongoing basis in various aspects of planning, delivery, assessments, administration, etc. This model allows the option for candidates to appear for international certification.

In addition to the above this would include the following activities

- Assessments
- Syllabi Mapping
- Centre Approval

- Visiting Verifiers
- International Certification
- Quality audits

### **Optional Model Three – Management and Implementation**

This model is the most comprehensive in its scope. This model is suitable for agencies (state governments) or institutions that are willing to offer management contracts through a structured arrangement whereby CII would take responsibility of managing the institution/s through a management team created for the purpose and bring about necessary changes in administrative structure, delivery structure, personnel, etc to achieve agreed upon objectives.

This aims at achieving outcomes and creating an institution that is effective in delivering on its stated objectives consistently and is thoroughly committed to enhancing the quality of its output and human resource.

The activities would include signing of a Memorandum of Understanding that ascribes full time responsibilities of managing and operating one or more institutions along with being provided the necessary flexibility to discharge those.

### **Option Model IV: Technical Input by Industry Associations**

Industry/industrial section will provide only technical inputs and carry out other functions as envisaged in the IMC guidelines.

### **Option Model V: Autonomy of the IMC**

- ITIs may be made autonomous by registering them as a Society .
- IMC may be free to take decision on the various activities of institute in its day to day functioning.
- State Government may provide funds to the institutes at the present level which will be required to go on reducing in next coming years, so as to make self sufficient.

- The IMC will have to generate funds through fees/consultancy /job work.
- The State Government will sign an MoU with the IMC for the various aspects related to management/ training delivery / output .
- The success will be judged by various indicators viz –results/ dropouts/number of applications received/ placement etc.

#### **Option Model VI: Adoption of an ITI by Industry Association**

- Industry Associations may consider adoption of an ITI by taking full control of the institute, could be on lease for certain period, by paying a certain amount (to be decided by the State) to the State Government.
- The State Government could sign an MoU with the concerned industry Association for the management/training/output.
- The industry association will be free to provide additional training staff . The existing staff, if not required by the Industry Association, could be considered for transfer by the State Government to another ITI in the State.
- The new management of an ITI could charge fee from the trainees and provide training as per the National Curriculum. They would be free to impart additional skills, if required, and test/certify the trainees in addition to the NCVT norms.
- Industry Associations would also be responsible for admissions of the trainees as well as their placement after the training.
- The Output of the ITI could be judged by various indicators viz dropout rate/placement of trainees after passing out/ result of the trainees. These could be compared with the previous years as well as with the similar Government ITI.

### **Option for running Short Term Courses in ITIs**

Following options for running short term courses can be considered for better utilisation of equipment and training of more number of trainees:

#### **Option # 1 (Part-time courses)**

Short term training courses for 2- 4 hours per day can be started. For example, if only one unit of a trade is running, then practical training as part of short term training programmes in skills related to that trade area can be given for 5 – 8 hours per day. If two units of a trade are running, even then a short term training programme for 2 hours per day can be operated.

#### **Option # 2 (Weekend courses)**

Most of the ITIs/ITCs operate for 6 days/ week. Short term training programme for working persons can be organised on Sundays.

#### **Option # 3**

Many types of equipment in ITIs/ITCs are used only for few weeks in a year. Some of the equipment is even used only for a week out of total duration (1 to 2 year) of training i.e. many equipment remains idle for 80-90% of the total course duration. Short term specialised training programmes can be started for training on such equipment when the equipment is idle. e.g. the ITESM trade has wide range of domestic appliances, computers, office equipment etc. in the curriculum. Each of these is used for about 1- 4 weeks in the total training period of two years. So training can be organised on courses such as:

- ❑ Repair & maintenance of washing machine/ microwave/ photocopy machine
- ❑ Repair & maintenance of computers etc.



#### **Option # 4**

An ILO study has recommended that wherever demand for long term training programmes under Craftsmen Training Scheme is not sufficient, introduce *short courses* for school drop-outs, unorganised sector workers and school graduates who do not want to pursue the National Trade Certificate. Therefore, this option can also be considered where the demand for long term training programmes is not sufficient.

Apart from above options, those training institutes which assesses good demand for a particular course but do not have the required infrastructure may start the course after organising necessary facilities required for running the course.

**LIST OF SECTORS FOR WHICH CURRICULUM DEVELOPMENT UNDER MES  
HAS BEEN TAKEN UP**

<b>Sl. No.</b>	<b>Sector</b>
1.	Khadi
2.	Agriculture Machinery
3.	Electronics
4.	Process Instrumentation
5.	Hotel & Catering
6.	Electrical
7.	Production
8.	Fabrication
9.	Chemical
10.	Automotive Repair
11.	Apparel / Garment Making
12.	IT
13.	Jute & Bamboo
14.	Ref. & AC
15.	Construction
16.	Food Processing
17.	Printing
18.	Civil Aviation
19.	Beauty Culture, Hair & Skin care
20.	Plastic Processing Operator
21.	Painting
22.	Handicrafts & Carpet
23.	Leather & Sports Goods

**List of MES Course Curricula approved by the NCVT  
(as on 11.08.2006)**

**Khadi Spinning & Weaving Sector**

1. Spinning on new model Charkha,
2. Advance Spinning (Woolen)
3. Advance Spinning (Cotton & Muslin)
4. Advance Spinning (Silk)
5. Plain Weaving on Frame Loom
6. Advance Weaving ( Woolen)
7. Advance Weaving (Silk)
8. Advance Weaving (Cotton/Polyvastra)
9. Advance Weaving (Kanchivaram/ Banarasi)

**List of MES Course Curricula approved by the NCVT  
(as on 11.08.2006)**

**Fabrication**

1. Basic Welding (Gas)
2. Basic Welding (Arc)
3. Gas Cutting
4. TIG Welding
5. MAG/ CO2 Welding
6. Fabrication Welding
7. Pipe welding (TIG & ARC)

**Electronics**

8. Basic Electronics (Repair & Maintenance of Power supply, inverters and UPS)
9. Installation & Maintenance of DTH System
10. Digital Videography Editing and Mixing
11. Repair & Maintenance of washing machine and microwave oven
12. Repair & Maintenance of TV Receiver
13. Maintenance & Repair of Electronic Test Equipment
14. Repair & Maintenance of Cellular Phone
15. Repair & Maintenance of Intercom System
16. Installation & Maintenance of Electronic Equipments in Cell Phone towers
17. Repair & Maintenance PA & Audio Systems
18. Repair & Maintenance Photocopier and Fax Machine
19. Operation of clinical Equipment
20. Operation of ECG & ICCU Instruments
21. Maintenance of ECG & ICCU Equipment
22. Operation of X-Ray Machine & Dark room Assistance
23. Maintenance of X-Ray Machine
24. Operation of Physio Theraphy Equipment
25. Maintenance of Physio Theraphy Equipment

**Process Instrumentation**

26. Instrumentation Panel fabrication and installation of pipe line

27. Process instrumentation machinery and equipment mechanic
28. Maintenance of recorders, transmitters and analyzers

### **Refrigeration & Air-conditioning**

29. Basic Refrigeration & Air Conditioning
30. Repair & Maintenance of Refrigeration Unit
31. Repair & maintenance of Domestic Air Conditioner
32. Repair & maintenance of Air Condition Plant
33. Repair & maintenance of MAC Unit (Car)

### **Automobile**

34. Basic Automotive Servicing (4 Wheelers)
35. Basic Automotive Servicing (2-3 wheelers)
36. R&O of 2 wheelers( moped)
37. R&O of 2 wheelers (scooter)
38. R&O of 2 wheelers (motor cycle)
39. R&O of 3 wheelers
40. R&O of engine systems (petrol/diesel)
41. R&O of Chassis system (Light Vehicle)
42. R&O of Chassis system (Heavy Vehicle)
43. R&O of Auto electrical & Electronic system

### **Chemical**

44. Safety & General Awareness in Chemical Industry
45. Process Attendant Chemical Plant
46. Mechanical Operation Attendant in Chemical Plant
47. Maintenance Attendant Chemical Plant
48. Instrument Attendant Chemical Plant
49. Lab Attendant (Chemical Plant)
50. Industrial Chemical Manufacturing Attendant
51. Heat Transfer Equipment Attendant (Chemical Plant)
52. Mass transfer Equipment Operator – I
53. Mass transfer Equipment Operator - II
54. Maintenance of Pumps & Valves (Chemical Plant)
55. Industrial Chemical Manufacturing Assistant
56. Maintenance & Repairs of Pressure, Flow, Temperature and Level Instruments
57. Advance Instrumentation & Control attendant

### **Garment Making**

58. Hand Embroider
59. Machine Embroidery Operator
60. Garment packer
61. Garment Ironer
62. Maintenance of Machines in Garment Sectors
63. Basic Sewing Operator
64. Computerized Embroidery Machine Operator
65. Garment Cutter
66. Garment Checkers
67. Skilled Sewing Operators
68. Special Sewing Machine Operator
69. Tailor Children
70. Tailor Ladies
71. Tailor Gent's
72. Tailor Suits

### **Production and Manufacturing Matrix**

73. Turning
74. Advance Turning
75. CNC Turning
76. Milling
77. Advance Milling
78. CNC Milling
79. Surface Grinding
80. Cylindrical Grinding

### **Plastic Processing**

81. Basic Fitting & Measurement
82. Basic Electrical Joints & Fitting
83. Plastic Mould assistant for injection moulding
84. Plastic mould assistant for Compression moulding
85. Plastic mould assistant for Extrusion Moulding
86. Plastic mould assistant for Blow moulding
87. Auto Plastic mould assistant ( injection moulding)
88. Auto Plastic mould assistant ( compression moulding)
89. Auto Plastic mould assistant ( extrusion moulding)
90. Auto Plastic mould assistant ( blow moulding)

### **Printing**

91. Basic for Printing Sector (Except Book Binding)
92. Basic Book Binding
93. Offset Machine Operator –Sheet Fed (Single & Multi Colour))
94. Offset Machine Operator – ( Web Perfector)
95. Offset Plate maker
96. DTPO
97. Screening printing
98. Book Binder
99. Advanced/ Supervisory ( Except Book Binding)
100. Advanced/ Supervisory (Book Binding)

### **Electrical**

101. Basic Electrical Training
102. Repair of Home Appliance
103. House Wiring
104. Electronic Choke & CFL Assembling
105. Transformer Winding
106. Armature Winding
107. Rewinding of AC/DC Motors
108. Repair of Electrical Power Tools
109. Maintenance of Batteries