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Dear *Sh. Varma,*

It gives me great pleasure in submitting the report of the Study Group on Skill Development, Training and Workers' Education.

On behalf of all members of the Study Group, I would like to convey my gratitude to yourself as well as other members of the Second National Commission on Labour, for the confidence reposed in us for dealing with a subject of such national importance. The Study Group expresses its grateful appreciation to various industry associations, government organisations, NGOs, trade unions, professional bodies and academicians, who conveyed their views on various issues before the Group.

The Study Group expresses its thanks to Mr. N. Sanyal, Member Secretary and Dr. B.R. Sabade, Full time member, National Commission on Labour, for providing us with perspectives and other related inputs on the subject matter of the Group. Mr. T.C. Girotra, Director, Mr. Piyush Sharma, Joint Director and Ms. Priti, Dy. Director, were very helpful in providing much needed assistance from time to time.

As Chairman of the Study Group, I would like to place on record my personal appreciation for every member of the Group who brought to its deliberations his personal insights, expertise and experience.

I would like to thank Mr. Ravi Prakash Gupta, Assistant General Manager, Hero Corporate Services Limited and Mr. Anupam Bhasin, Director, Hero Corporate Services Limited, for assisting me in organizing the meetings of the Study Group, organizing seminars on behalf of the Study Group as well as preparation of the report.

With warm regards,

Yours sincerely,



(Sunil Kant Munjal)

Shri Ravindra Varma
Chairman
Second National Commission on Labour
Government of India
Ministry of Labour
New Delhi

BACKGROUND NOTE ON CONSTITUTION, TERMS OF REFERENCE AND APPROACH OF THE STUDY GROUP ON "SKILL DEVELOPMENT, TRAINING & WORKERS' EDUCATION"

1. Constitution of the Study Group

The Second National Commission on Labour, Ministry of Labour, Government of India, constituted the Study Group on "Skill Development, Training & Workers' Education" vide Notification No. 6/2000/NCL/Study Group dated August 21, 2001. The Group held its first meeting on September 26, 2001. The Study Group comprised the following members:

Chairman

Shri Sunil Kant Munjal

Members¹

Dr. C.S.K Singh

Shri D. Thankappan

Shri Gurnam Saran

Shri R. A. Mittal

Shri S. K. Bijlani

Shri S. Krishnan

Shri S. V. Gokhale

Co-opted Member

Shri Anupam Bhasin

2. Terms of Reference of the Study Group

The Commission has not indicated any terms of reference to our Study Group on "Skill Development, Training and Workers' Education". In view of this, our task is more or less in line with the broad terms of reference for the Second National Commission on Labour, which are as follows:

- (a) to suggest rationalization of existing laws relating to labour in the organised sector; and
- (b) to suggest an "umbrella" legislation for ensuring a minimum level of protection to the workers in the unorganised sector.

¹ Names have been mentioned in alphabetical order.
Mr. Ravi Prakash Gupta has co-ordinated the activities of the Study Group.

While developing the framework for its recommendations, the Commission may take into account the following: -

- (i) Follow up implications of the recommendations made by the commission set up in May 1998 for review of various administrative laws governing industry;
- (ii) The emerging economic environment involving rapid technological changes, requiring response in terms of change in methods, timings and conditions of work in industry, trade and services, globalization of economy, liberalization of trade and industry and emphasis on international competitiveness and the need for bringing the existing laws in tune with the future labour market needs and demands;
- (iii) The minimum level of labour protection and welfare measures and basic institutional framework for insuring the same, in the manner which is conducive to a flexible labour market and adjustments necessary for furthering technological change and economic growth; and
- (iv) Improving the effectiveness of measures relating to social security, occupational health and safety, minimum wages and linkages of wages with productivity and, in particular, the safeguards and facilities required for women and handicapped persons in employment.

In terms of the above, the National Commission on Labour constituted the following six Study Groups:

- | | | |
|---------------|---|--|
| Study Group 1 | : | Review of Laws |
| Study Group 2 | : | "Umbrella" Legislation for workers in the unorganised sector |
| Study Group 3 | : | Globalization and its Impact |
| Study Group 4 | : | Social Security |
| Study Group 5 | : | Women & Child Labour |
| Study Group 6 | : | Skill Development, Training & Workers' Education |

3. Approach of the Study Group

In its first meeting, the Study Group delineated the concepts of skill development, training and workers' education and listed the various existing and future challenges facing the Indian labour force. Based on its deliberations, it worked out its plan of action and sources of data and thereafter, decided to assign the tasks to various members in the Group. It also decided to collect and analyze data from primary and secondary sources as well as seek views of various external organisations and experts.

In line with its plan of action, the Group conducted two experience-sharing workshops on Skill Development, Training and Workers' Education in the Unorganised Sector, inviting participation from Non Government Organizations, Trade Unions, Self-help groups, Individual Beneficiaries and Academia. The first workshop was conducted at Bhubaneswar,

Orissa and the second workshop was conducted at Bhopal, Madhya Pradesh. In respect of Organised Sector, the Study Group also conducted four workshops at Chennai, Tamil Nadu; Bangalore, Karnataka; Hyderabad, Andhra Pradesh; and Ludhiana, Punjab. Thus, the Study Group has attempted to learn from the experiences of the participants belonging to various regions of India.

The Study Group also created a website to share various presentations amongst Study Group members as well as reaching out to a wider audience. The website address is as follows:

<http://www.angelfire.com/journal2/studyguide>

The Study Group also invited papers on selected topics from experts in this area with a view to develop newer perspectives, collect relevant data as well as invite their suggestions.

The Study Group also collected data about prevalent systems of skill development and training of selected foreign countries.

Overall, the Study Group held seven meetings on the following dates:

Meeting Number	Date
1.	September 26, 2001
2.	October 23, 2001
3.	November 7, 2001
4.	December 1, 2001
5.	December 21, 2001
6.	January 15, 2002
7.	February 15, 2002

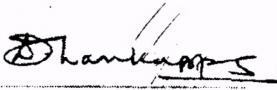
During these meetings the members made presentations, shared the data collected, deliberated upon various issues before the Study Group and decided on the next course of action.

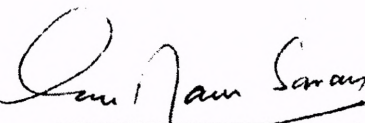
The members of the Study Group have worked out the recommendations keeping in view their practicability in the Indian context and the ease in implementation. These recommendations are based on the Group's collective understanding that the Government must continue to retain the responsibility and act as a facilitator by making sure that all rules and regulations are in place.


Signed and Delivered by the Study Group comprising:


(Sunil Kant Munjal)


(C.S.K. Singh)



(D. Thankappan)


(Gurnam Saran)


(R.A. Mittal)


(S.K. Bijlani)


(S. Krishnan)


(S.V. Gokhale)


(Anupam Bhasin)

The views expressed in this report are solely that of the Study Group constituted by the National Commission on Labour and are not necessarily that of the Commission.

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GLOSSARY

- Competence** : Competence embodies the ability to transfer skills and knowledge to new situations within the occupational area and it encompasses organisation and planning of work, innovation and coping with non-routine activities. It includes those qualities of personal effectiveness that are required in the work place to deal with co-workers, supervisors and customers
- Competency** : Competency is an integration of knowledge, skills and attitudes, which a person has to demonstrate at a pre-determined proficiency level, in order to perform a given task/job, efficiently and effectively. It is, thus, a combination of a body of knowledge, a set of skills and a cluster of appropriate traits that an individual possesses to perform a given task / job
- Informal Sector²** : The official definition of informal sector consists of Directory Establishments that employ at least six persons but not more than nine, Non-Directory Establishments that employ five persons or less and Own Account Enterprises that employ oneself. Although it is used interchangeably with the unorganised sector, this document treats it as the unorganised sector excluding agricultural sector
- KAIZEN** : Kaizen means improvement – Continuous small improvements in personal life, home life, social life and working life involving everyone. Kaizen signifies all improvements made in the status quo as a result of ongoing efforts. The implementation of Kaizen helps to generate a process-oriented way of thinking and in developing strategies that assure continuous improvements involving people at all levels. Kaizen is an ongoing process. Kaizen covers a wide spectrum of work, starting with the way a worker works on the shop floor to improvements in the machinery and facilities and finally improvements in the systems and procedures. Kaizen once put into practice makes the worker a “thinker”, always looking for better ways to do their work
- Unorganised Sector¹** : Although an exhaustive definition of unorganized sector is not possible, it is defined as the residue of the Organised Sector. Any sector that fails to get the benefit of the social security laws and is unorganised in terms of employment, labour participation and organisation (industry) can be considered as unorganised

² Definition as taken from Report of the Study Group on “Umbrella Legislation for Workers in the unorganized sector”

5S

: '5S' is a technique used to establish and maintain a quality environment in an organisation. The name stands for five Japanese words meaning, Sort, Simplify, Scrub, Standardise and Self-discipline. It is also the starting point for many common quality initiatives such as ISO 9000 and TQM. Practicing '5S' develops a pleasant workplace that is high in quality and productivity, keeps cost down, ensures delivery on time and is safe for people to work. It eliminates search time and stoppages and delays in looking for and develops a feeling of ownership in the minds of workers, raising their morale high.

CHAPTER - 1**EXECUTIVE SUMMARY****1.1 Overview**

To ensure both sustained economic growth and **employment** opportunities, a nation needs to be competitive through a concerted effort in this direction. Countries across the world, whether developed or developing, are being exhorted to raise their national **competitiveness**. As a result of the heightened competition and economic change, developing nations are facing a tough challenge in maintaining the **employability** of large segments of their labour force. Simultaneously, competition and economic change also provide an opportunity for economic growth and employment expansion. The possession of a well-educated and skilled labour force opens up enormous opportunities in terms of moving into higher value-added, knowledge based and technologically advanced sectors, such as Information Technology Enabled Services, Information Technology services, Telecom, Biotechnology, Healthcare, Tourism, Infrastructure. Skill Development, Training and Workers' Education, are therefore, vital, if not critical, inputs for enabling a nation to attain and retain global competitiveness.

Skill development, training and workers' education also assume significance in view of tremendous competition from South East Asian nations, which have a workforce that is more productive, disciplined and probably as cost-effective as the Indian workforce.

Secondly, a significant part of the labour force, viz. 93% is employed in the unorganised sector which comprises owners of establishments, family workers, hired workers, fixed base foot loose workers, mobile foot loose workers and home based workers in agriculture, business & commerce, health, paramedical and other services. Both the level of training and access to education are low among them.

As per available data (National Sample Survey on Employment and Unemployment, 55th round), 44% of the Indian labour force is illiterate, 22.7% of the workforce has schooling up to the primary level and the balance 33.3% has schooling up to the middle and higher level. Only 5% of the Indian labour force in the age bracket 20-24 years has obtained vocational training as compared to equivalent figures of 28% in Mexico, 22% in Botswana and 17% in Peru, which are developing nations when compared to India. (Source: Report of Task Force on Employment Opportunities, 2001).

These figures point to the growing need for strengthening and enlarging the existing infrastructure for education and training. It may be mentioned that there are 4274, government and privately owned, Industrial Training Institutes (ITIs) in India, which impart vocational training apart from the training initiatives of various Ministries of the Government of India. The Vocational Education and Training system in India and a breakup of the Annual training capacity of 25.99 lakh students has been summarised as Table 2.5 and Table 2.6, respectively.

Summing up, low literacy, vocational bias against technical skills, occupational preference for non-production jobs, mismatch between skills acquired and skills required, dearth of adequately/ appropriately trained technical personnel, low competitiveness of labour vis-à-vis developed nations and employability and retraining of labour are among the major weaknesses that characterise the macro level situation of labour in India.

1.2 Methodology adopted

The Study Group has used a "combination approach" of utilising the learnings from the experience of both Indian and international organisations in this field, talking to experts, and gathering already published material, to put together a comprehensive report, which would be practical and actionable.

During the course of the study, it was found that although there is a lot of experience available on the subject, more so on the organised sector, not enough research had been done primarily in the unorganised sector. Responding to this, the Study Group conducted two experience-sharing workshops on Skill Development, Training and Workers' Education in the Unorganised Sector, inviting participation from Non Government Organisations, Trade Unions, Self-help groups, Individual Beneficiaries and Academia. The first workshop was conducted at Bhubaneswar, Orissa and the second workshop was conducted at Bhopal, Madhya Pradesh. Salient findings are featured as Annexure I. In respect of organised labour, the Study Group also conducted four workshops at Chennai, Tamil Nadu; Bangalore, Karnataka; Hyderabad, Andhra Pradesh; and Ludhiana, Punjab. Salient findings are featured as Annexure II. Thus, the Study Group has attempted to learn from the experiences of the participants throughout various regions of India. The Study Group has also recapitulated some of the success stories, which have been mentioned as Annexure VII.

1.3 Structure of Report

The report consists of 9 chapters. Chapter 2 mentions the status of the Indian Labour force and details of labour force distribution, dynamics of the labour system and its segmentation. Chapter 3 summarizes the seven key challenges facing the Indian Labour system. Chapter 4 deals with the new approach to the vocational training emphasising multiskilling in the approach. Chapter 5 discusses the competency based training system covering all sectors of the economy and is especially relevant for the unorganised sector. Chapter 6 deals with the competency based certification system and Chapter 7 deals in detail more recommendations for the unorganised and the organised sector, including workers' education. Chapter 8 details the various Annexures of the report and Chapter 9 deals with the Bibliography.

1.4 RECOMMENDATIONS

The Study Group on Skill Development, Training and Workers' Education recommends, as follows:

1.4.1 New Approach to Vocational Education enabling Multiskilling

A new approach to vocational training is proposed in Chapter 4. To offer flexibility to individuals and to meet their diverse vocational needs, a modular approach to training is advocated. The modular approach will permit flexibility to individuals to move between training and employment sectors. It will enable them to move up through levels of education and training on a continuous basis.

Training shall take a new format and consist of small result oriented modules. This permits timely induction of new and need based modular curricula in consonance with the needs of the target group. By undergoing such modular courses, the trainee also becomes more versatile/ multi-skilled.

1.4.2 Forecasting of marketable skills through establishing Labour Market Intelligence System

For better matching of demand and supply of marketable skills, a labour market intelligence system needs to be set up. This system will forecast the demand of various marketable skills at the national level and at the district level through the existing government machinery but in consultation with the industry associations, entrepreneurs, experts, NGO's etc. on a continuous basis. This system would take into consideration existing and emerging business opportunities in India and abroad. This system will be applicable for forecasting of marketable skills in both the organised and unorganised sectors (refer Chapter 7).

1.4.3 Competency Based Training System for Organised and Unorganised sectors

In order to meet the new challenges facing the Indian workforce, the Study Group recommends setting up of a competency based, continuing training system covering all sectors of the economy. The purpose of competency based training (CBT) is to develop a competent workforce which will comprise individuals who can consistently perform work activities to the standards required in employment over a range of contexts or conditions. The training system will have a well-defined certification system for the competencies acquired during the program. It will help in providing learning, training, retraining, assessment and accreditation opportunities, with desired academic flexibility to those who wish to achieve higher skill standards and performance at work place (refer Chapter 5).

1.4.4 Training needs assessment through Competency Assessment Boards/ Groups for Unorganised sector

For implementation of Competency Based Training across all sectors of the economy, it is imperative that the competencies for various occupations are established. Attitudinal training requisite for the occupation for which the learner is being trained is also to be taken into account. Competency Assessment Boards/ Groups (sector specific) need to be established at the National/ Regional Level, which will focus on assessing, compiling and standardising competencies required for various occupations on a continuous basis.

The competencies will be identified by interactions with the industry associations, by utilising the services of various specific institutions, and through detailed regular surveys. The aim of these surveys will be to project the nature and characteristics of the unorganised sector – its activities and its workers. They will contribute information that is relevant for structuring the curricula of Competency Based Training programs (refer Chapter 7).

1.4.5 Training of rural labour

In order to undertake development of rural areas in the true sense, the country would be required to establish training institutions at the doorsteps of the rural masses. It would be appropriate to establish Block Level vocational education institutions, in a phased manner in each block, so that the country can economise on creation of large infrastructure for such institutions. These institutions are to be set up with the financial support of government, NRIs, corporate sector, NGOs. These institutions should aim at two important levels (a) spread of literacy and (b) spread of vocational education with a view to create marketable

skills and continuous employability of the rural labour (refer Chapter 7).

1.4.6 Setting up of an Independent Regulatory Authority

An independent regulatory authority needs to be set up for controlling skill standards, programme implementation and accreditation of training institutions / organisations. Such an authority needs to have statutory powers in formulation of policies (including the mechanism of fees and funding), action plans and programmes for providing a continuing, coordinated and fully integrated skill development programme. (refer section 6.1).

1.4.7 Competency based Certification System for Organised and Unorganised sector

A national level certification for different trades / skills is recommended (refer Chapter 6). It will serve as an excellent system for workers without formal qualifications. Accredited persons and institutions can conduct the tests at specified intervals. In case a person already possesses competencies gained hereditarily or gained formally or informally through distance learning systems such as Internet, self-learning modules, previous work in a work place or training in an organisation, they can appear for the test with the accredited person (assessor) or organisation for testing and certification of the level of prior learning.

1.4.8 Strengthening of ITI's and support from the Industry

At present, there is insufficient capacity in the areas of skill development and training. Hence a pressing need to enlarge the training infrastructure as well as utilise effectively and productively the existing infrastructure. While infrastructure is available in the form of 4274 Industrial Training Institutes (ITI), there are a number of problems with the ITIs. They need to restructure and reorient their courses at a much faster rate and effectively respond to the current and future needs of the labour market. Further, the Industry- Institute interaction continues to be weak. So far, inputs from the industry into ITIs are merely of advisory nature, which are not very effective. A need is there for advisory inputs to be supplemented with managerial inputs.

It is, therefore, recommended that ITIs need to:

- (a) Run market driven courses.
- (b) Review and if necessary, revise curriculum every five years to keep it contemporary.
- (c) Give refresher training on new technologies and tools to teachers at ITIs.
- (d) Discontinue obsolete (not required by market) courses.

Further, for ensuring effective involvement of industry in the training process, it is recommended that some ITIs may be selected on pilot basis for developing into Institutes of Excellence. They should be managed jointly with the industry. In this regard, institutionalisation of Industry-Institute interaction and empowerment of training institutions would be important.

It may be mentioned that in 1997, a study was made in eleven ITIs in North India with the participation of senior officers from DGE&T, State Directorates, CII and local industry representatives. In January 1998, CII organised a workshop on "Industry-Institute Interface for the years 2000 and above". One of the major recommendations of this workshop was to set up an Institute Managing Committee (IMC) with the participation of local industry for at least one

ITI in each State. It was also proposed that a Steering Committee at the State level, be constituted, which would decide the powers to be devolved to the IMCs. The suggested composition of the IMC with roles and responsibilities is mentioned as Annexure III.

The IMC model has been already tried successfully in ITIs located in Northern States (refer Chapter 7).

1.4.9 New Training Delivery Systems

In order to expand training capacity as well as to provide training anytime, and anywhere, new delivery mechanisms such as computer based training, web-based training, distance learning, etc. can be adopted which would offer flexibility in timings, pace of learning, and customisation of content to serve the varying needs of the different target groups (refer Chapter 7).

1.4.10 Integrating vocational education at school level

In view of the large number of individuals entering the labour force, vocational education should be integrated at the school level. This will also help in standardisation of training courses. It is relevant to consider in this context whether vocational training should be added onto the general school system or whether it should be imparted through separate schools. However, some of the trades such as masonry, the school students should be allowed to enter the courses after 8th standard (due to low skill level requirement) (refer Chapter 7).

1.4.11 Incentivisation of Training through benefits

In order that skill development and training get the due focus, it is felt that fiscal incentives should be extended to industry and other providers of training. They can be given incentives by the government in the form of providing land at concessional rates, a part-funding of the capital cost, tax benefits on the amount spent by them for training and skill development, awards, teachers' training, provision of training material, etc. The same can also be extended by way of tax sops on the amount spent on training and skill development.

It is also recommended that the entire expense in training should be treated as a revenue expense and all capital expenditure on training and infrastructure should be eligible for an accelerated depreciation equal to 1.5 times the amount spent during the same financial year. The investment in training and infrastructure is made to encourage the culture of training and to improve the skills and attitude of performance (refer Chapter 7).

1.4.12 Skill Development Fund (for next 10 years, subject to review)

In order to provide for:

- (a) Retraining of workers rendered surplus/ obsolete by lay-offs, retrenchment and Voluntary Retirement Schemes/ Early Separation Schemes;
- (b) Training of labour in the unorganised sector;

the Group recommends establishment of a Skill Development Fund (SDF), in the manner it has been established in other countries including Singapore, Malaysia, China, etc.

The key features of the Skill Development Fund are as follows:

- a) The fund will be contributed by organisations which are eligible to contribute Provident Fund either through the Provident Fund office or through their own trust.
- b) The amount of contribution to be paid by such organisations will be approximately 0.24% of basic salary and wages. To make it practical to implement and administer, the contribution should be pegged with the Provident Fund as an administrative charge @ 2% of the Provident Fund contribution by the employer and an equal amount @ 2% of the Provident Fund contribution by the employee. The government will also contribute every month, two times the amount collected from the employer and employees to this Fund. A proposed source of the government's contribution is by way of amount received from disinvestment in public sector units or monies collected from sale of surplus land or assets of Public Sector Enterprises (PSEs).
- c) For the purpose of collection, the contribution is proposed to be routed and administered through the Regional Provident Fund (PF) Office (as per the system prevalent in Singapore), so as to avoid extra administrative burden. The PF office will receive the contribution along with the Provident Fund and deposit the same into a separate account within a week of the receipt. It is reiterated, by the Group that no new collection mechanism involving additional government machinery should be devised.
- d) The respective individuals/organisations making this contribution to the SDF, will be given tax concession for an amount equal to the amount contributed to the SDF.
- e) At all points of time, 25% of the total amount in the SDF will be invested in a corpus with high safety and reasonable return. The balance amount in the SDF will be used for purposes mentioned above.
- f) The collections to this SDF shall continue for a period of 10 years. It is expected that by that time the SDF corpus would be self-sustaining. Thereafter, contributions to the SDF should be discontinued. However, this is subject to review based on the requirements of the labour situation at that point of time.
- g) The utilisation of the amount so collected in the SDF, should be monitored by persons of eminence and reputed industry associations in association with the Central and State Governments (refer Chapter 7).

1.4.13 Coordination of Training Efforts

Various ministries of the Government of India are providing vocational education and training systems in India (refer table 2.5). The Government should find out ways and means to coordinate the work of the Ministry of Human Resource Development, Ministry of Labour, Ministry of Rural Development and Ministry of Industry, to avoid duplication (refer Chapter 7).

1.4.14 Self-employed Training in the Unorganised sector

A large part of the employment is being generated in the services sector and mostly there in the self-employed sector. The self-employed sector requires additional skills in the area of

felt that "mentors" in actual business conditions will help in the development of skills. The Bhartiya Yuva Shakti Trust, which is a CII initiative established in 1991, is one of the relevant models in this context. The details of this model can be had from CII, New Delhi. The Trust fosters entrepreneurial activity by providing seed capital loans and practical business advice through mentors. The loan recovery rate is 94%, indicating strong economic viability (refer Chapter 7).

1.4.15 Workers' Education

A comprehensive programme of education of workers has to be established in the light of changes in the employment scenario, including organisation of work and the working conditions. The education programme cannot tackle only the issue of skill development towards a changing job market. It has also to look at the vital question of allowing the workers to understand their environment and the processes of which they are a part. They should be enabled to have a say in the way in which the processes affect them, through programmes that improve their individual and collective bargaining abilities.

Given the context of current business strategies of dispersal and contractualisation of work, alternative forms of organisation assume significance, so the education programme should also encourage adoption of alternative forms of organisation, with a view to improve the involvement and control of workers over their work. These include forms of self-organisation, including producer and consumer cooperatives.

The programmes should also discuss organisation of workers, and the history of collective bargaining. The new working class should be imparted an understanding of the gains negotiated and obtained by the earlier generations of workers towards overall improvement in their work-sphere as well as quality of life. Such a process of identification with working class traditions is to enable them to grow organically and retain a collective identity. This collective identity is essential for a sense of their worth, and for retaining some control over their work life.

Success of such a programme depends on the participation of workers and workers' organisations in the design, conduct and control of the contents and method of delivery of the training programme. As such, their prominent role in the ownership of the programme is necessary.

There should be thrust areas in training to be identified by the Central Board of Workers' Education, every year. The CBWE should identify two to three thrust areas at the National/Regional level on quality, competitiveness, ISO, etc. Further emphasis on customer focus to serve better and quality improvements should be there (refer Chapter 7).

1.4.16 Role of Trade Unions, NGOs & Other Interest Groups

The objective of achieving a skilled workforce is possible only when all the stakeholders act as partners in training. Trade unions at the national, regional, industry and plant level should have a say in the running of workers' education programmes. Similarly, NGOs should be involved in training in the unorganised sector (refer Chapter 7).

1.4.17 Increasing Literacy levels

Keeping in view the fact that 44% of the Indian workforce is illiterate, the current literacy programmes initiated by the central and state governments should also be targeted at the future entrants into unorganised and organised labour market (refer Chapter 7).

CHAPTER - 2**INDIAN LABOUR FORCE**

Skilled labour is in increased demand. This is on account of globalisation, changes in technology as well as work processes. Production has been getting globalised and financial markets the world over have become integrated. Information Technology has been primarily instrumental in increasing the speed of communications and reducing its costs. Globalisation in turn has led to intensified competition, technological diffusion and adoption of new forms of organisation. As a result of the heightened competition and economic change, developing nations are facing a tough challenge in maintaining the employability of large segments of their labour force. Simultaneously, competition and economic change also provide an opportunity for economic growth and employment expansion. To take advantage of these opportunities, the level and quality of skills that a nation possesses are critical. Moreover, rapid technology changes and transition to a more open economy entails social costs. These can be restricted only through equally rapid upgradation of the work force's capabilities.

In the backdrop of above, countries like India, which have opened their economy in the last decade, need to invest in the skill development, training and education of their workforce. As technological change, shorter product cycles and new forms of work organisation alter the environment, training systems come under pressure. To counter these pressures on training, incentives for training systems are to be considered. These will help the country's Industry to adapt successfully to ongoing economic change.

2.1 Dynamics of Indian Labour System

The entire dynamics of the Indian labour system has been depicted as Figure 2.1. At present, labour is used as an input in the various sectors of the economy to produce a visible output, viz. the finished product or the service. It may be mentioned that these sectors of the economy also produce surplus workforce, which may be arising out of various reasons viz.

- ❖ Companies turning sick
- ❖ Closure of companies
- ❖ Recession leading to reduced workforce
- ❖ Process automation
- ❖ Shift of labour from Manufacturing sector to Services sector
- ❖ Mergers & Acquisitions
- ❖ Obsolescence of skill sets, e.g., typing

The surplus workforce which arises in the system, therefore, needs to be retrained for better employability. While retraining is one aspect, there is also the need for skill development and training for improving quality, cost and delivery of product/service. Training institutions, thus, have to serve as the means for meeting the needs of skill development, training, retraining and education of the workforce.

It may be mentioned that 93% of the Indian workforce (total employed workforce of 397 million as on March 1, 2000) is employed in the unorganised sector. The growth rate of labour in the unorganised sector has been far higher than the growth rate of employment in the organised sector as the latter has often become increasingly capital and skill intensive. As

per available statistics (refer Table 2.1), only 7% are employed in the organised sector and 93% were employed in the unorganised sector.

2.2 Indian Labour force skills – present status

2.2.1 Framework for Segmentation

The entire labour force can be segmented in a 4X2 matrix with the degree of organisation of labour on the x-axis and the Type of sector of economy on the y-axis. Based on this, we can represent the distribution of various occupation/ jobs of the workforce across organised and unorganised segments and in the sector of the economy. The segmentation is depicted as Figure 2.2. This figure shows some examples of the various jobs/ occupations/ enterprises that can be considered in the organised or unorganised sector.

2.2.2 Labour force distribution

A numerical overview of the strength of the Indian labour force in the organised and unorganised sector is given as Figure 2.3. The total labour force in India including unemployed people is 406 million. The workforce or the employed people comprise 397 million and approximately nine million people are unemployed. The workforce aggregating 397 million constitutes 38.6% of the total Indian population and is distributed as 60% in agriculture, 7% in the organised (non-agricultural) sector and 33% in the informal sector (refer Table 2.1). It may be mentioned that there is blurring of classification between the organised and unorganised sector workers. For example, the beedi workers are considered in the unorganised sector on the criteria of social security and employment terms, even though they are unionised and fulfil one criteria of being in the organised sector. Similarly contract/ casual labour working in industries and other establishments in the organised sector can be considered in the unorganised sector, as they are non-unionised and do not get the social security benefits.

The distribution of workers by major sector of economic activity is tabulated in Table 2.1. The organised sector (both public and private sector) employ only 7% of the working force. The remaining 93% workforce is employed in the unorganised sector which comprises owners of establishments, family workers, hired workers, fixed base foot loose workers, mobile foot loose workers and home based workers, in agriculture, business and commerce, health, paramedical and other service sectors. As can be observed from the Table 2.1, there has been a gradual shift of workers from the agricultural sector to the informal sector, as the percentage of people in the organised sector has more or less remained constant around 7%. Substantial employment growth is taking place in the small and unorganised sector, i.e., in tiny and small enterprises. Based on the figures mentioned in Table 2.1, the informal sector has grown at 1.06% per annum over the period 1997-2000.

The distribution of employment in different segments of the informal sector is given as Figure 2.4. Approximately 67% of the workers are in the establishments by either being employed as workers or as entrepreneurs.

It may be mentioned that as data on skill levels is not readily available, it is difficult to quantify the level of skills in the labour force. However, a snapshot of the education levels of the Indian labour force in 1999-2000, reveals a dismal picture (refer Table 2.2 on educational

attainments of the labour force) with about 44% of all workers being illiterate. It may be observed from the table that 51.3% of the total rural area workers are illiterate while only 21.5% of the urban area workers are illiterate. About 22.7% of the total workforce had schooling only up to the primary level. Considering that workers need to have schooling at least up to the middle level and higher level for performing in the market, then only 33.3% of the workforce can be termed to be adequately qualified.

Further the category "middle school and above" includes all those who have had some middle school education even though they may have dropped out of the school before completing middle school. The provisional drop rate at middle school levels is quite high at 42%, in the year 1998-99. As per a rough estimate from the 52nd round (1995-96) of the National Sample Survey, only 20% of the population in the age group of 14-16 years actually completes secondary school education.

These figures indicate the deficiencies in the general education level of the labour force. Figure 2.5 shows the enrolment in different stages of education as percentage of population in the appropriate age group. The overall trend of enrolment in middle classes and higher secondary classes has been growing over the years and it can be inferred from the increasing trend that the new entrants to the labour force will be significantly better educated than present.

While general education is required for most jobs, possession of "marketable skills" (read as specific skills) are a must for the labour force for obtaining employment. The NSSO Survey on Employment & Unemployment (1993-94) gives information on the possession of 30 specific marketable skills by persons in the labour force and the results are summarised in the Table 2.3. In the rural areas, only 10.1% of the male workers and 6.3% of the female workers possessed specific marketable skills and in the urban areas 19.6% of males and 11.2% of females possessed marketable skills. As per the report of the Task force on Employment Opportunities set up by the Planning Commission, about 12.3 million persons are expected to enter the labour force per year aggregating 86.2 million persons between the year 2000 and year 2007 (Table 2.4). After allowing for underutilisation of seats in training institutions and some overlaps, the percentage of those entering the labour force with some degree of formal training is about 12% gross of the new entrants (about 1.5 million per year) into the labour force. It is estimated that a significant number of new entrants will be absorbed in various types of unskilled labour in agricultural and non-agricultural occupations while the rest will enter the market with some skills.

It may be mentioned that only 5% of the Indian labour force in the age category 20-24 years has obtained vocational training. The corresponding figure in other industrialised nations is much higher between 60% – 80%, except for Italy, which is 44%. The corresponding percentage for Korea is very high at 96%. Even if India is benchmarked against developing nations, the Indian figures of 5% is far behind Mexico at 28%, Botswana at 22% and Peru at 17%.

2.3 Present Methods of Skill Acquisition

At present, the persons entering the labour workforce acquire skills from a variety of methods such as:

- a) **Hereditary skills acquired in the family** : In traditional family based crafts, e.g., pottery, carpet weaving, the younger members of the family learn the art of crafts from their senior members in the family. This is also the most common method for acquiring contemporary skills *viz.* tailoring, repair work, etc.
- b) **Induction Training** : In most organisations, immediately after an employee joins the organisation, he or she is sent for an induction which involves rotation through various departments and familiarisation with the normal practices of the department and method of work.
- c) **On the job training** : This is the most popular method in the informal sector wherein workers join as unskilled or semi-skilled workers and learn specific skills in the course of their employment. Larger industrial units also impart on the job training in a more structured manner through in-house training facilities.
- d) **Vocational Training in specialized institutions** : Vocational skills are also acquired through formal vocational training in specialised institutions. There are 4274 Industrial Training Institutes (ITIs) in India, which impart training in 43 engineering and 24 non-engineering trades. Of these 1654 are in the government sector and remaining 2620 institutes are in the private sector. The total seating capacity in these ITIs is 6.28 lakhs. Further, there are six Advanced Training Institutes (ATI), which are managed by the Central Government that provide training for instructors in ITIs and two ATIs for Electronics & Process Instrumentation; offering long and short term courses for training of skilled personnel at technician level in the fields of industrial, medical and consumer electronics and process instrumentation. There are also proprietary institutes organised as businesses, which provide training of various types in areas such as computer applications, readymade garments and hardware maintenance.
- e) **Formal Apprenticeship**: Historically, apprenticeship was the principal means of training semi-skilled workers. At its simplest, it is by far the predominant mode of acquisition of trades, crafts and occupations. The most famous is the German "dual system" where apprenticeship is combined with school-based education. The Indian Apprenticeship Act, 1961, requires employers in notified industries to engage apprentices in specified ratios in relation to the workforce. Apprentices get trained for periods ranging from six months to four years and at the end of the period they are trade-tested by the National Council for Vocational Training. The Apprenticeship Act, thus, serves two purposes: A) regulating the programme of training apprentices in industry so as to conform to the prescribed syllabi, period of training, etc. and B) to utilize fully the facilities available in industry for imparting practical training with a view to meeting the requirement of skilled workers.
- f) **Vocational Training linked to development programmes** : These are specifically designed to provide training in the informal sector, e.g., the schemes for training of women by the Department of Women and Child Development, skill development programmes by the Khadi & Village Industries Commission (KVIC), training programmes of the Department of Small Scale Industry (SSI), etc.

The vocational education and training system in India at a glance is given as Table 2.5 and the total annual training capacity of various training providers is given in Table 2.6.

2.4 Vocational Training

Vocational Training could be:

- Institutional pre-employment training.
- In-plant training.
- Apprenticeship training.
- Post employment / In-service/Job Related training.
- Advanced / Specialist training.

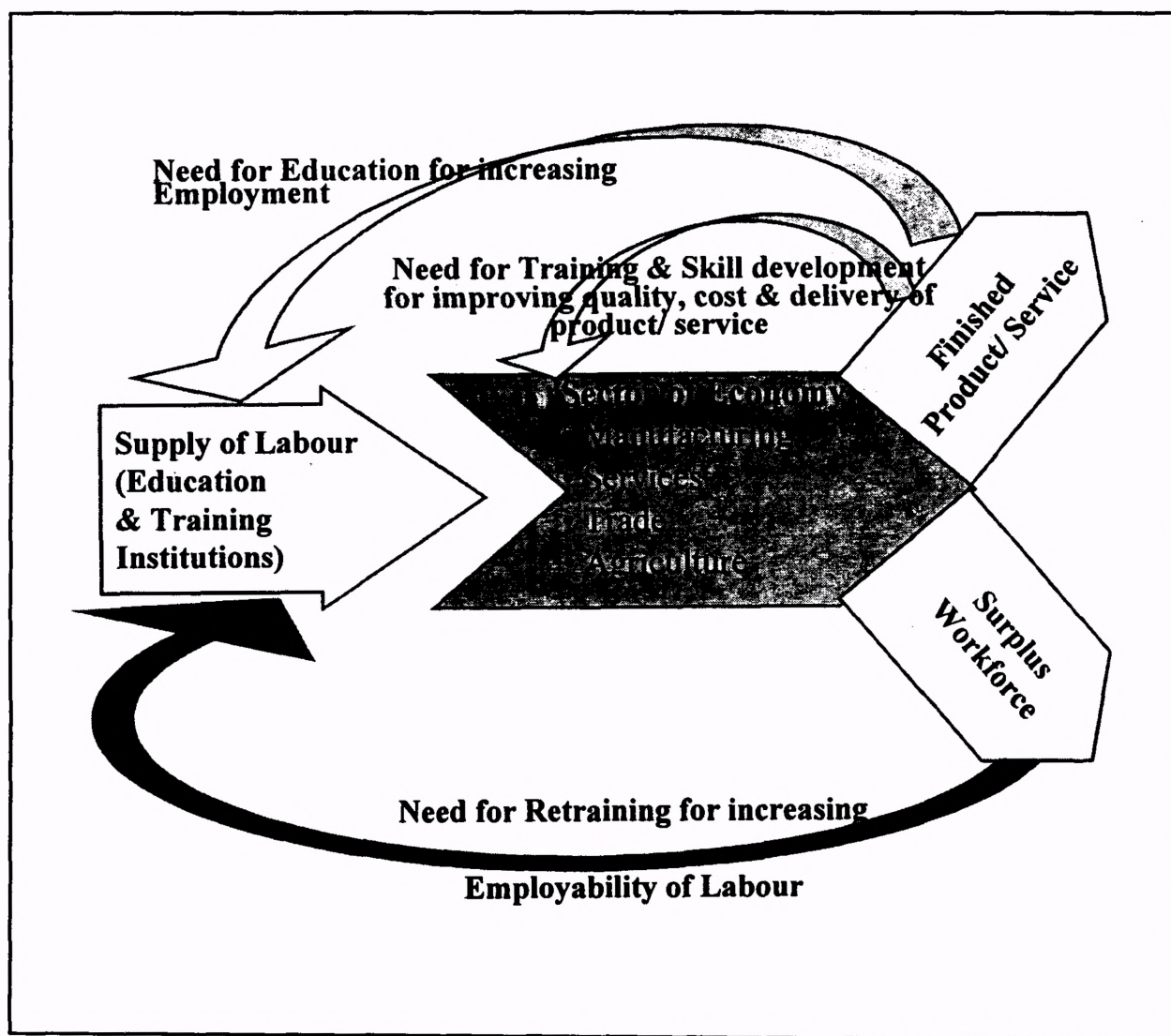
The Indian Trade Apprenticeship Act, 1961 was implemented to cover training of trade apprentices. The responsibility of Act implementation is with the Central Apprenticeship Advisor/ Director of Apprenticeship Training in DGE&T, Ministry of Labour. The Act was amended in 1973 to cover Graduate & Diploma holders in Engineering and Technology as Graduate and Technician Apprentices. In 1987 the Act was amended again to cover training of students passing out of the 10+ vocational stream as Technical Vocational Apprentice. As on June 30, 2000, only 1.65 lakh seats were utilised out of a total of 2.27 lakh seats for apprenticeship training in central or state/ private sector enterprises combined.

The lacunae in the present trade apprenticeship training can be summarised as follows:

- a) Inadequate coverage of skill requirements.
- b) Improper demand and supply relation.
- c) Lack of flexibility in the engagement of Trade Apprentices within the same Trade Group.
- d) Lengthy and clumsy administrative procedures of record keeping and filling up of return.
- e) Lack of incentives to encourage industries to modernise their training facilities.
- f) Inadequate and poor quality of training facilities as well as training staff.
- g) Small establishment unable to engage apprentices.

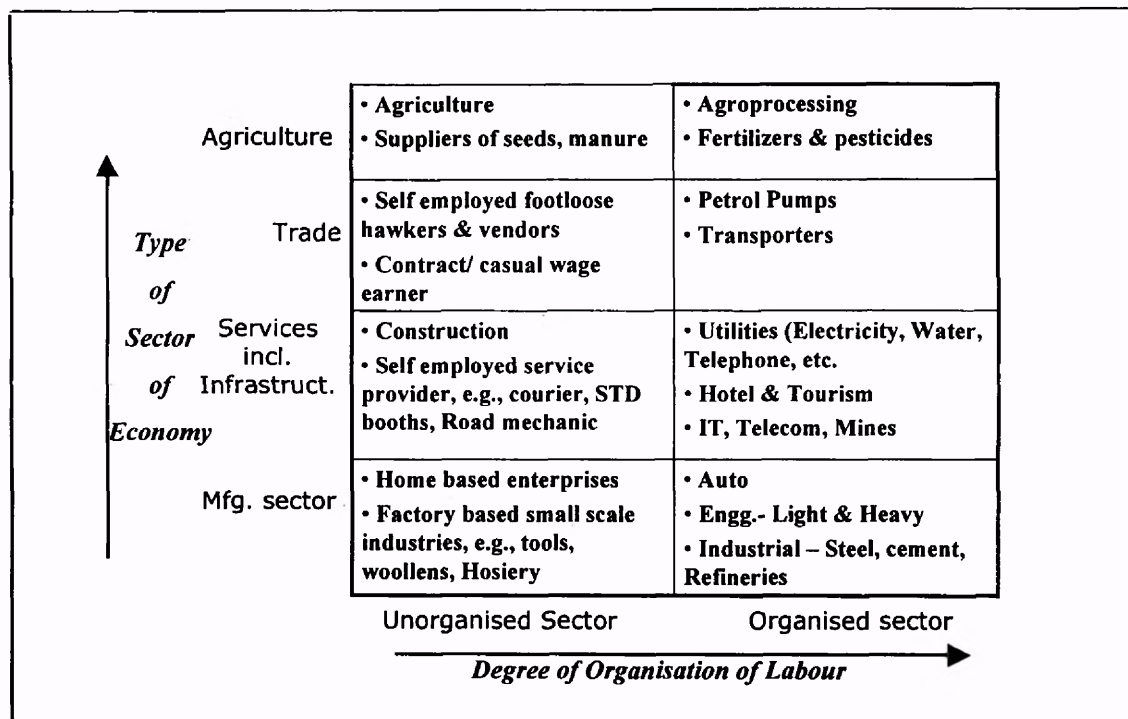
Figures

Figure 2.1 Dynamics of the Indian Labour System



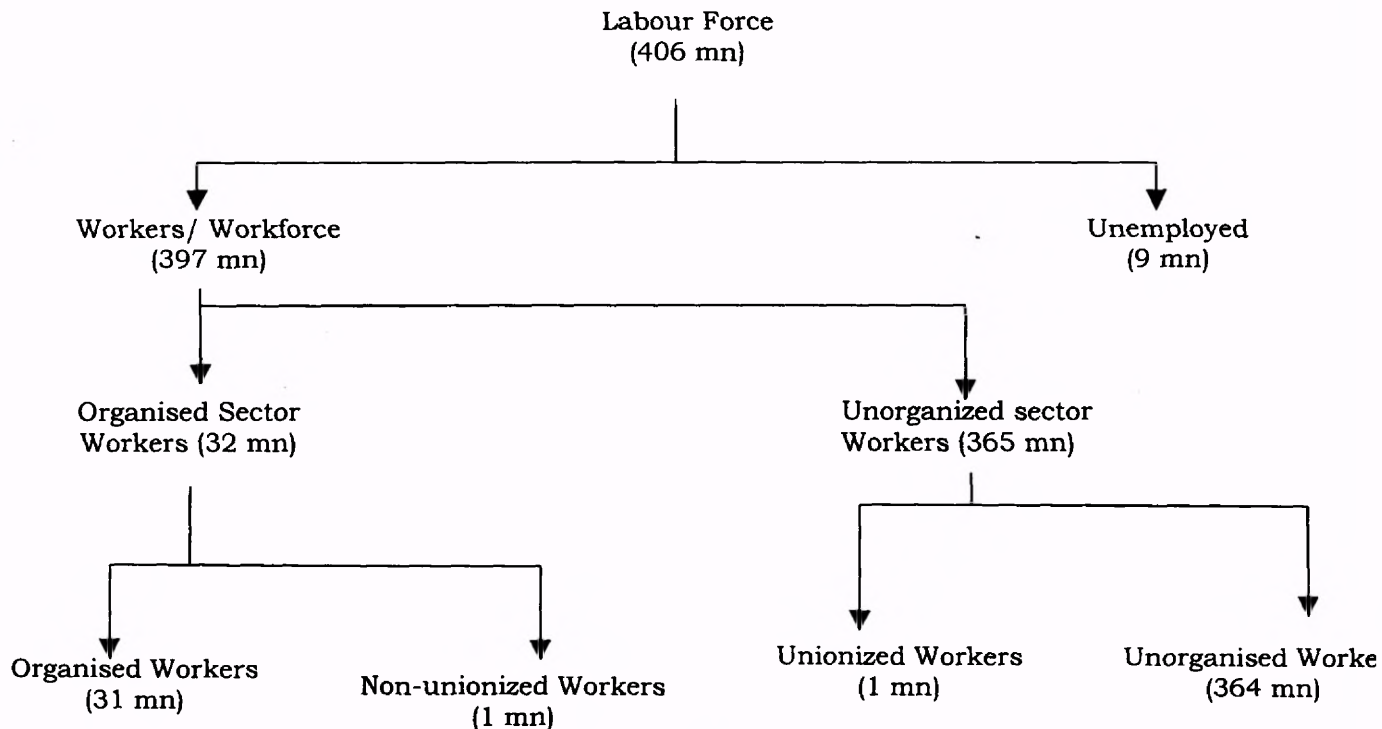
Source: Study Group Discussions

Figure 2.2. Segmentation of Labour



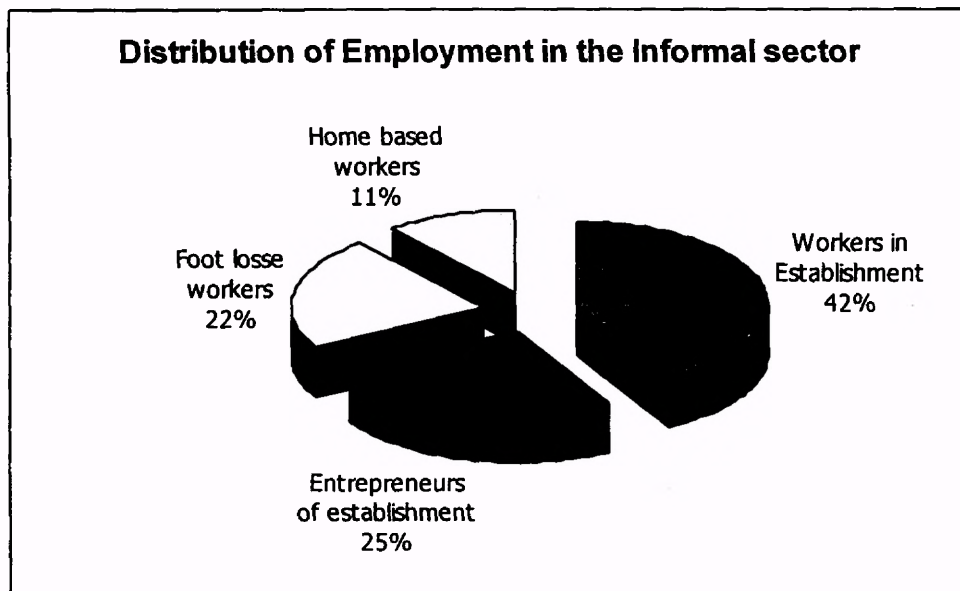
Source: Study Group Discussions

Figure 2.3 Distribution of the Labour Force³



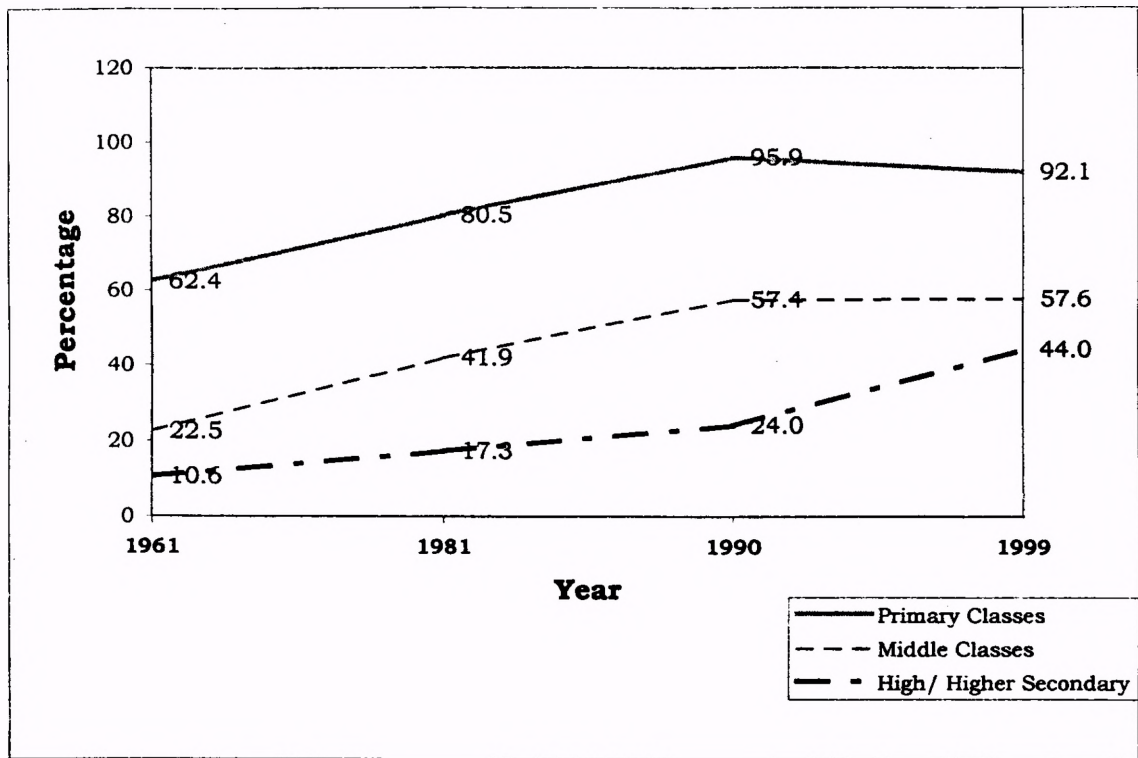
³ Source: Based on information collected from Manpower Profile India: Year Book 2000 and Annual Report of Ministry of Labour

Figure 2.4 Distribution of Employment in different segments of the Informal sector



Source: Employment in the Informal sector: MS Ramanujam et. al, Institute of Applied Manpower Research

Figure 2.5. Enrolment in different stages of education as percentage of population in the appropriate age groups⁴



Education Stage	Age Group (in years)
Primary Classes	6 – 11
Middle Classes	11-14
High/ Higher Secondary	14-17

⁴ Source: Compiled from data from Manpower Profile of India, Year Book 2000 & Report of Task Force on Employment Opportunities

Tables
Table 2.1 Distribution of workers by major sector of economic activity

(Numbers in millions)

Year	Agriculture	Non- Agriculture		Total
		Organised	Informal	
1972-73	175.0	8.8	42.5	236.3
(%)	74%	8%	18%	100%
1977-78	195.0	21.2	54.5	270.7
(%)	72%	8%	20%	100%
1982-83	206.2	24.1	72.5	302.8
(%)	68%	8%	24%	100%
1987-88	206.4	25.7	89.9	322.0
(%)	64%	8%	28%	100%
1990-91	218.4	26.7	96.8	341.9
(%)	64%	8%	28%	100%
1993-94	242.5	27.4	104.6	374.5
(%)	65%	7%	28%	100%
1996-97	243.8	28.2	110.1	382.1
(%)	64%	7%	29%	100%
1999-2000	237.6	28.1	131.3	397.0
(%)	60%	7%	33%	100%

Source: Manpower Profile India: Year Book 2000, Institute of Applied Manpower Research, New Delhi

Table 2.2. Composition of workers of age 15 years and above by level of education 1999-2000

(all figures in %)

	Not Literate	Literate & Schooling upto primary level	With schooling upto middle & higher level	Total	Share in Workforce
Rural Areas					
Male	39.6	27.3	33.1	100.0	49.7
Female	74.0	15.5	10.5	100.0	25.8
Person	51.3	23.3	25.4	100.0	75.5
Urban Areas					
Male	16.0	22.0	62.0	100.0	19.7
Female	43.9	17.6	38.5	100.0	4.8
Person	21.5	21.1	57.4	100.0	24.5
All Areas					
Male	32.9	25.8	41.3	100.0	69.5
Female	69.3	15.8	14.9	100.0	30.5
Person	44.0	22.7	33.3	100.0	100.0

 Source: National Sample Survey on Employment & Unemployment, 55th Round

Table 2.3. Percentage Distribution of persons by possession of marketable skill; 1993-94

(all figures in %)

Possessing	Rural		Urban	
	Male	Female	Male	Female
No Skill	89.9	93.7	80.4	80.4
Some Skill	10.1	6.3	19.6	11.2
Total	100.0	100.0	100.0	100.0
Sample Persons	(183464)	(172835)	(109067)	(99283)

 Source: National Sample Survey on Employment & Unemployment, 50th Round (1993-94)

Table 2.4. Entrants to Labour force between 2000-2012^a

Entrants to Labour Force	(million persons)	
	2000 to 2007	2007 to 2012
	7 years	5 years
Rural Areas ¹	52.4	40.3
Urban Areas ²	33.8	28.1
All India	86.2	68.4

Source: Report of the Task Force on Employment Opportunities set up by the Planning Commission

Notes : a. Corresponds to 1.8% per annum labour force growth scenario

1. excluding migrants from rural areas

2. including migrants to urban areas

Table 2.5 Vocational Education & Training System in India at a glance

UNDER GOVERNMENT AUSPICES					OTHER THAN GOVERNMENT
Department of Education, Govt. of India	DGET, Ministry of Labour, Govt. Of India	DWCD, Ministry of HRD, Govt. of India	Ministry of Rural Area & Employment	Ministry of Industry, Govt. of India	<i>Industrial Enterprises</i> * In-plant Training
* Vocational Education Secondary School Lower school First degree level	* Craftsmen training scheme	* Norad Assisted Programme	* Training Rural Youth for Self Employment (TRYSEM)-now replaced by other programmes	* Training through DCSSI institutes	<i>Private Training providers</i> * Private Proprietary Training
* Apprenticeship (for graduate engineers, diploma holders & vocational school passout(s))	* Apprenticeship Training Scheme (trade apprentices)	* Condensed courses of education & vocational training		* Training under National Renewal fund (NRF)	<i>Non Government Organizations</i> * Informal sector training
* Technical Education	* Advanced vocational training scheme	* STEP ⁵		* Training activities of KVIC	<i>Employers Organizations</i> * Support to Industry Training activities
* Community Polytechnic project	* Vocational Training Programme for women				
* Shramik Vidyapeeths	* CSTR * CSMI * CITS * FTIS				

Source: Report of the Task Force on Employment Opportunities set up by the Planning Commission

Table 2.6: Annual Training Capacity of various Training Providers

Department / Institution	Figures in lakhs
DGE&T, STATE GOVERNMENTS ETC.	
- Industrial Establishments	2.27
- Seats in ITIs	6.28
DEPT. OF SEC. & HIGHER EDUCATION	
- Polytechnics	2.20
- Arts & Crafts	2.20
- Vocational Stream	5.00
- Community Polytechnics	3.07
- Vocational Courses under National Open School	0.20
DEPT. OF WOMEN & CHILD LABOUR	
- Support to Training & Employment programmes for women (STEP)	0.10
DEPT. OF SSI & RURAL INDUSTRY	
- EDP	0.16
DEPT. OF RURAL DEVELOPMENT	
- SGSY	2.14
DEPT. OF URBAN EMPLOYMENT & POVERTY ALLEVIATION	
- SJSRY	2.00
MINISTRY OF TEXTILES	N.A.
MINISTRY OF INFORMATION TECHNOLOGY	0.35
MINISTRY OF TOURISM	
- Hotel Management	0.024
TOTAL CAPACITY	25.99

Source: Data collated from the Report of the Task Force on Employment Opportunities and Report of the working group on Skill Development & Training set up by the Planning Commission

CHAPTER - 3

PRESENT AND FUTURE CHALLENGES OF LABOUR

Having discussed the needs and the current status of the Indian workforce, we can summarise the seven key existing and future challenges for Indian labour:

- a) **Challenge of globalisation:** The Indian economy has opened up in the last decade. India has also become a member of the WTO. In order to remain competitive, the organised sector has commenced outsourcing. The use of casual and contractual labour has increased for meeting varying production levels. Globalisation has also thrown up a challenge in the form of exposure to new technologies and products, which are perceived as a threat to the traditional are as, particularly in the unorganised sector. The learning from this exposure needs to be assimilated by the workforce.
- b) **Challenge of labour competitiveness vis-à-vis China and other nations:** India has been facing competition from China and other South-eastern Asian nations in various sectors including toys and handlooms. The workforce of these nations is disciplined and cheaper as compared to the Indian workforce. With China, becoming a member of the WTO at the November WTO meeting at Doha, Qatar, the challenge to the Indian workforce to remain competitive has increased manifold.

As per the World Competitiveness Report (1994), which examines competitiveness of human resources based on skills, motivation, flexibility, age structure and health of people, India is ranked to be the least competitive amongst the 10 Newly Industrialised Countries. In India the quality of skilled labour, according to the Report, is good. But the proportion of skilled labour in the total labour force of the country, is too small. With the result, though the country ranked first among the 10 Newly Industrialised Countries, in terms of quality of skilled labour, with regard to their ready availability, it ranked 7 out of 10.

- c) **Challenge of redeployment of surplus manpower from agriculture and manufacturing to services & trade (within self employed and wage earners):** Due to a variety of reasons, there is surplus manpower arising from the organised sector. These persons need to be retrained and made employable. The shift may largely require attitudinal orientation and skill based training.
- d) **Challenge of recognising Labour as Human Capital rather than as a cost:** Two views can be taken of human resources, one being that they are a cost and the other being that they are an investment. The first view translates into attempts to keep wages low and spend as little as possible on training and human resource development. The second view treats people as a source of competitive advantage. It leads organizations to invest in skill development.

The industry, therefore, needs to recognise labour as Human Capital and invest in training. The labour too must make their effort to gain clear acknowledgement from industry and society of their competence, commitment and contribution. Global competitiveness as a nation is a joint task and can be achieved only through the

sense of common endeavour between employers and the employed. Short-term programmes to upgrade the skills and output quality of the labour force may be devised by industry associations, which include cross-functional skills.

- e) **Challenge of continuous employability of labour:** With rapid changes in technology, markets and environment, skill obsolescence is growing. Employment is contingent on employability. Employability is contingent partly on skills and largely on attitude. The best insurance against job loss is to effectively nurture and nourish a culture of multi-skills in place of mono-skills. This provides career resilience and career self-reliance.

In certain sectors of economic activity in India, labour does not get employment throughout the year and there are idle periods. The challenge is to ensure that they are continuously employable throughout the year and also over their working life. Higher levels of workers' education will allow possibilities of their pursuing more than one occupation during the year, as per seasonal demand. Multiskilled labour can be utilised for various work.

- f) **Challenge of enlarging and utilising effectively the infrastructure for education and training:** While the existing infrastructure for imparting vocational training and education needs remedial attention, these facilities also urgently need to be expanded. Only then can they meet the increased challenges before them to equip and orient large numbers of the workforce with the latest techniques and operational skills.
- g) **Challenge of absorption of new technologies by labour using education and training:** The Indian workforce has been faced with new production concepts like Computer aided design (CAD), Computer aided manufacturing (CAM), Robotics, Just-in-time (JIT) and Flexible Manufacturing Systems (FMS), which require increased knowledge to be imparted to them. Likewise, in the white-collar segment, MS-Office, Desktop Publishing, Accounting Software has become ubiquitous and vocational institutes must include them in their curriculum. Some of the skill sets tend to become insufficient by themselves for employment, e.g., typing.

3.1 Standards of Excellence⁶

Based on the above challenges, the knowledge requirements, skill requirements and attitudinal requirements of labour force are expected to attain the following standards of excellence:

Standards of Excellence	Knowledge Requirements (what the job holder must know and understand)	Skill Requirements (what the job holder must be able to do and demonstrate)	Attitudinal requirements (how the job holders must conduct themselves with others)
Service	Optimization of the equipment usage for the benefit of end users	Customize services to suit individual and end users	High level of teamwork, ability to constantly learn new skills
Product	Requirements of the market place including niches	Ability to prototype product fast	Focus on the market place and customers
Market	Market dynamics of changing user tastes	Shortest time to market product/ service	Speed is of the essence
People	High level of specialized domain knowledge	Ability to work with one's own hands	Positive attitude and national pride
Control	Should know source of new knowledge and set it online	Should be able to change skills fast	Passion to excel and handle ones' emotions

⁶ Based on the paper received by the Study Group

CHAPTER - 4**RECOMMENDATION: NEW APPROACH TO VOCATIONAL TRAINING****4.1 Training systems**

Training targeted at achieving global competitiveness can be successful only through a sense of shared purpose between employers and the employed. The Study group has examined the training systems of various countries, which are found to be broadly of three types – “co-operative”, “enterprise based” and “state-driven”. These have been summarised in Table 4.1. In the co-operative system there is no single institution responsible for the planning and delivery of the training system. Instead, the employers’ organisation and trade unions cooperate strongly for producing the desired result. Germany is one of the successful examples of this system. The details of operation of the German “Dual System” are given as Annexure IV.

In the “enterprise based system”, as prevalent in Japan, the educational system provides a foundation of basic skills, which is then built upon by employers through intensive off-and on-the-job training. While vocational and technical schools provide some initial training, the bulk of skills development is provided and financed primarily by employers. Employees with few industry-specific skills on entry are shaped by the system into a highly skilled workforce that is very adaptable to change.

In the “state-driven system” of the demand-led type, which is prevalent in the East Asian economies, the education and training systems of these economies has to respond to rapid changes in the demand for skills. In this, the governments have played a key role, especially in meeting the demand for higher-level skills. In Singapore, the Skills Development Fund has financed a vast expansion of continuous training for all types of workers and has been an effective instrument of skill upgradation. In the “state-driven system” of the supply-led type, which was operational in many of the centrally planned economies of Eastern Europe and the erstwhile USSR, the training system was sustained through government financing. It puts little or no pressure on employers to train and instead the government takes on the prime responsibility of running training institutes.

There are different training systems prevalent abroad. It would be suitable for India to adopt a system that has got participation from government, industry and trade unions, as and when required. Further, the study group recommends a new modular approach to vocational training, which will aid multiskilling, impart skills attuned to the needs of the labour market and in consonance with the latest technology.

4.2 New Approach towards Vocational Training enabling Multiskilling

New approaches towards vocational training have become imperative because of the expectations of the industry from the employee. Too narrow a specialisation or inflexible training arrangements restrict the scope for trained persons to improve upon their competencies while working as employees. Secondly, the existing informal system of skill development does not meet the career aspirations of the workers in terms of retraining and upgradation of skills. Thirdly, there is a mismatch between the supply of skills through the formal system of education and training and the demand of skills by the industry.

There is also a distinct shift in the skills from old craftsmanship and physical dexterity of individual trades to mental/ intellectual skills which call for logical/ abstract thinking and willingness / ability to learn new things quickly as the technological changes are expected to be continuous in future. Multifunction skill is also another requirement of future. To display versatility and absorb these higher skills, a worker needs to have an open mind, proper attitudes and be quickly adaptable to any change in working conditions or operational areas.

The primary objectives of the new approach towards vocational training will be:

- a) Development of proper work culture/ work attitude as well as knowledge of diverse technical field rather than on single skill learning.
- b) Multiskilling: which will also help in increasing the employability and is also important from the perspective that within the working lifetime of an individual, he or she may have to cope with increasing demand of technology on one hand and changing skills on the other hand.
- c) Training should provide flexible pathways to individuals for moving between training and employment sectors.
- d) Final training phase must be conducted in real or real like work environment so that the trainees apply all their skills in performing the relevant tasks at the threshold entry level of performance which is acceptable to the employer.
- e) Certification of trades/skills should be done by an authorised agency or licensed competent performer who is/ are external to the training institute (discussed in Chapter 6).

4.2.1 Framework for the new approach

In order to meet the objectives required in the new approach, the Study Group recommends a modular approach to training. Such an approach will cater to the diverse vocational needs and workplace requirements. It will also offer flexibility to individuals to move through the levels of education and training.

Some of the key parameters to be considered while developing a new approach are as follows:

- a) Effectiveness of training should be measured in terms of quality. The proposed approach can set specified minimum standards of quality for satisfying the qualification needs for skilled manpower in various sectors of the economy.
- b) Training to be imparted in small result oriented modules to develop proper work attitudes- all through emphasis on discipline, cleanliness, orderliness and accuracy.
- c) To impart inputs to develop ownership concept and create safe and pleasant working environment, by adopting '5S' ⁷ concept, i.e., 5S - to reduce the rate of accidents and loss of man-hours due to damage with a goal of zero accidents.
- d) Team to learn to identify and eliminate non-value adding activities and all kinds of waste.

- e) Develop training Module on TPM – Total Productive Self initiated Maintenance - involving total participation to achieve overall equipment effectiveness.
- f) Training should focus on teaching Cause-Effect Analysis with inputs on mechanism of a machine or equipment to understand the effect of its malfunctioning and effect of improper toolings / defective processes on quality of product.
- g) Motivate the trainees to evaluate themselves their own work with accuracy and assume responsibility for faultless operation with a Goal of zero rejection / first time OK – Self Inspection and Self Certification.
- h) Inputs on KAIZEN² - to achieve significant continuous improvement in performance through elimination of all waste. Trainees to be motivated to take up small KAIZEN events and encouraged throughout.
- i) Train to learn Team Work:
 - ❖ Trainee to be assigned individual exercises and to be guided by the instructor to plan, execute and evaluate their performance.
 - ❖ Trainee to be exposed later on to assume responsibility of planning, execution and evaluation of their own task - ability to think for oneself. Shift from Dependence to Independence.
 - ❖ Trainees to be exposed to Team Work by assigning small projects to a group of trainees. Required to plan, execute and evaluate the task assigned collectively.
- j) Market driven approach: The courses would have to be supported by a system of certification (currently the certification system for vocational trades does not enjoy acceptability from the users. The students carrying certificates are being re-tested/retrained in the same trade.). Certification system has been discussed separately in Chapter 6.

4.2.2 Modular Approach

The proposed training approach is denoted graphically as Figure 4.1 (A). A relevant example from the services sector (Paramedical) is denoted as Figure 4.1 (B). A detailed note on the proposed training relating to the figure is given below:

- a. PL₁, PL₂, PL₃ etc. are proposed Modules with increasing proficiency levels for a particular group of trades such as, say Machine Shop. Each module will be a cluster of sub-modules, which are designed as a learning element. Each sub-module will represent the smallest possible segment of a required body of knowledge and skill for which measurable learning objective can be defined. These sub-modules will have a learning objective, list of exercises to be performed, tools and equipment, standards of performance expected and mechanism for continuous checking of progress and definite period.
- b. The first Module PL1 would be for a broad based foundation training and common for various trades from a particular trade group. Through this a trainee could be prepared for undertaking wide range of jobs demanding basic skills rather than too specific skills.

⁷ Refer glossary

⁸ Refer glossary

- c. An apprentice after completing first module will be tested to confirm acquiring of a defined competency/ proficiency level – All India Trade Test may be conducted at this stage under the aegis of NCVT to certify the acquisition of 1st level of proficiency. This first certification by NCVT would qualify the trainee for employment.
- d. The trainee after completing the first module will have a choice to undertake a higher proficiency module, which will give them vertical mobility. This will be upgradation of their skills in the selected trade area. It is further proposed that examinations at higher 'P' levels may be conducted by respective States under the aegis of State Council for Vocational Training (SCVT). The trainee may also have a choice to undergo training across other trade areas. This will provide them horizontal/ lateral mobility, i.e., an apprentice from machining skill group undertaking 1st module from Electrical group. By undergoing such courses the trainee becomes more versatile/ multi-skilled.
- e. Thus a trainee with modular approach can pick up either high skills (skill promotion) or greater variety of skills (versatility – mobility across trades). An apprentice of a course will be required to fulfill certain qualifying norms such as certain number of years of shop floor experience, etc. for undergoing training at higher proficiency level or across the trades.
- f. Figure 4.2 gives the breakup of a Module into sub-Modules. A module for a Machine Shop Operator has been considered for the sake of example. Sub-modules A, B C would be common for other modules at PL1 level in other trade areas. Thus, by completing only the sub module D, E, F from other trade area the trainees can achieve the performance level PL1 across the trades. They, in turn, save time (20 weeks in the example taken) and become skilled in one more area. Continuing this they can become multi-skilled.
- g. Figure 4.3 indicates the modular approach towards cross-functional training. A trainee from 'Production' area may be able to move to 'Maintenance' or 'Inspection' group by selecting and undertaking appropriate modular training on fulfilling the necessary qualifying norms and at appropriate time. This cross-functional training would help a person to move up into Supervisory or Technician positions.
- h. Thus, there is an inherent motivational dimension incorporated in modular training approach and the ongoing modular programmes may enhance the career prospect of the individuals.
- i. The concept of continuing Vocational Training will be possible with this module system and then it will become an accepted part of career growth and development.
- j. Once the modular concept is accepted the structure modules could be designed. The existing facility available at ITIs could be rearranged / realigned to make these modules available to the trainees. Establishments having basic training facilities also could take up this new system of modular training. Individual, on their own, can take up these modules if employed even after working hours. Facilities at ITIs could be made available on part time basis for employed persons. Industries may also sponsor the workmen to undergo training in appropriate modules considering their own skill

requirements of future at ITIs or they may impart training accordingly to modular plan in their own premises and allow workmen to appear for final examinations and certification.

- k. Fig. 4.4 shows a rotational programme for various trade groups to ensure the optimum utilisation of facilities. It has been observed that the present Apprenticeship Training Programme recommends a set of machines / equipments for each trade. To cite an example Lathe, Milling, Grinding, Drilling machines are prescribed for each of the trades like Turner, Machinist, Grinder, Fitter, Tool & Die Maker, Millwright Mechanic, etc. It is seen that a cluster of such machines are made available in the respective trade training areas at ITIs. These machines remain idle once the respective skills are imparted. This could be avoided by a rotation plan, which makes training cost effective.

4.2.3 Modular Approach to the Service Sector

The modular approach mentioned above is also applicable to the services sector. As an illustration, the paramedical field is given as Figure 4.1 (B). The broad level occupations and the course content (as illustration) are mentioned subsequently.

- Few Occupations under Para-Medical field are:
 - a) Ward Technician
 - b) Operation Theater Technician
 - c) X-ray Technician
 - d) Ophthalmic Technician
 - e) Medical Lab. Technician
 - f) Life Support Care (ICU) Technician
 - g) Occupational Health Centre Technician
 - h) Dressers / First Aiders
 - i) Physiotherapy technician
 - j) Dental technician

For the occupation of Ward Technician, the basic module for the Ward Boy at Proficiency Level PL₁ can be as follows (given as illustration only):

- Course Contents covering both Theory and Practice – Hands on experience in Hospital / Laboratories / Clinics / Physiotherapy Centres.
 - i. Study/ understanding of “Human Body”. Different parts and their functions
 - ii. Understanding of common anatomical terms
 - iii. Surface Anatomy
 - iv. Study of function of different organs (Basic Physiology)
 - v. Human health and disease
 - vi. Acquaintance with Medical Terms used in ‘Clinical Practice’
 - vii. Aseptic precautions / Sterilisation of Instruments, Dressings, Linen
 - viii. Patients handling / Communication with patients & relatives

- ix. Basic 'Bio-chemistry'
 - x. Training in day to day working like measuring body temperature, administering injection, dressing, bandaging, etc.
 - xi. House keeping and sanitation in hospitals / Labs, etc.
 - xii. Preparation of beds
 - xiii. Safety precautions while handling patients, instruments
 - xiv. Basic "First-aid" treatment
 - xv. General Lab Management and Ethics
- On completion of the entire training course in one of the occupations, the trainee may have wage employment or self employment as illustrated below (for the occupation of medical laboratory technician):

OCCUPATION: Medical Laboratory Technician

Wage Employment	Self Employment
Technician / Lab. Technician in :	▪ Diagnostic Laboratory
▪ Blood Bank	▪ Sale of Readymade treatment kits/medicine
▪ Public Health Lab	▪ Distributor for Lab chemicals
▪ Pharmaceutical Labs / industrial or Occupational Health Centres	▪ Distributor for lab wares, equipment/ spare part.
▪ Taluka, District Hospitals	
▪ Private Hospitals, Nursing homes & diagnostic Labs	
▪ Primary Health Centres	
▪ Dental / Pharmacy Colleges	
▪ Micro biology / Bio-chemistry / Pathology Dept. of Medical Colleges & Hospitals, etc.	
▪ Physiotherapy clinics	
▪ Municipal Dispensaries	

4.2.4 Training Modules for Self Employment:

While developing modules based on proficiency levels PL₁, PL₂, etc. (Fig 4.1) one of its sub-module, covering necessary inputs useful for the trainee to engage himself in self employment on completion of training, could be designed wherever possible, depending upon the trade group areas. Separate training modules suitable for only self-employment otherwise could be designed keeping modular approach in mind.

The institutes may develop small sections with appropriate training facilities in the selected self-employment areas. To illustrate this point a sub-module on "Plumbing Skills" may form a part of main module of Assembly Fitter or Maintenance Fitter (these details are available from PSS Central Institute of Vocational Education, Bhopal – a NCERT division). Initially a trainee will learn all plumbing skills in the well developed / equipped section and then practice on live jobs. The Institute may provide on the job training by exposing the trainee to real life situations. For example, the trainee can be put on the job by the institute, if the institute has an annual repair contract with the Bungalow Owners or Housing Societies in the neighbouring residential areas. Institutes, thus, continuously would get the repair jobs in plumbing, the customer get prompt service and trainees the opportunity of getting real life experiences.

With this approach towards training for self-employment the institute would be able to earn 'Revenues'. The institute may at its discretion, pay a small portion of the earning to the trainee to motivate them to perform well. Trainees will also learn how to communicate with the customer and develop self-confidence in doing repair jobs independently. They can also be trained to keep accounts, spare part inventory and proper care of tools and equipment. Such modules would certainly help in developing and consolidating the necessary skills of Entrepreneurship.

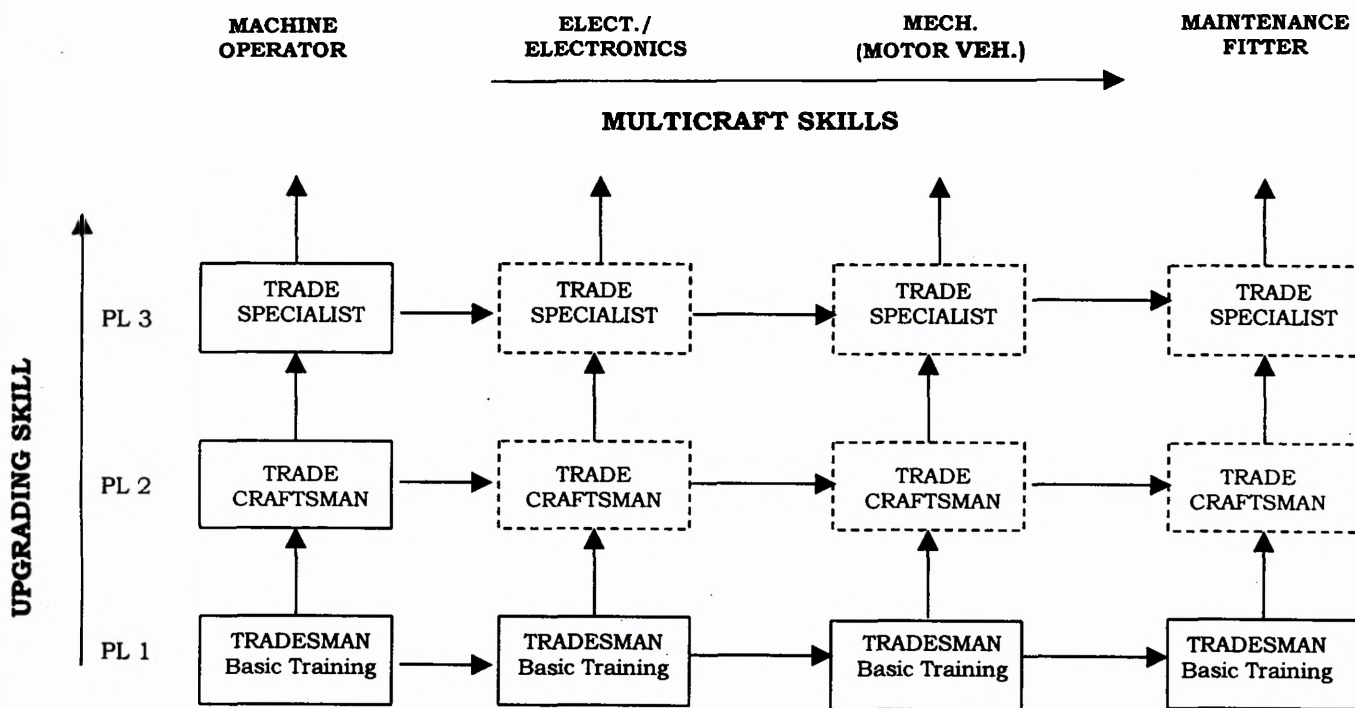
Many such modules covering the service sector like "Repairs of Electrical Domestic Appliance" or "House Wiring" or Motor Winding, which form a part of main module of "Mechanic Electrical and Electronics", could be designed to promote Self-Employment.

4.3 Conclusion

The modular approach to vocational training is applicable to the labour force **both** in the organised and the unorganised sectors. As has been indicated in the illustrative examples pertaining to manufacturing (machinist) and service (paramedical – ward boy) sub sectors, this system is applicable for horizontal, vertical and diagonal upgradation of skills. This system results in creating a multi-skilled workforce as well as increasing the employability of the workforce.

Figures

Figure 4.1(A) Proposed Training Approach (Manufacturing sector)⁹

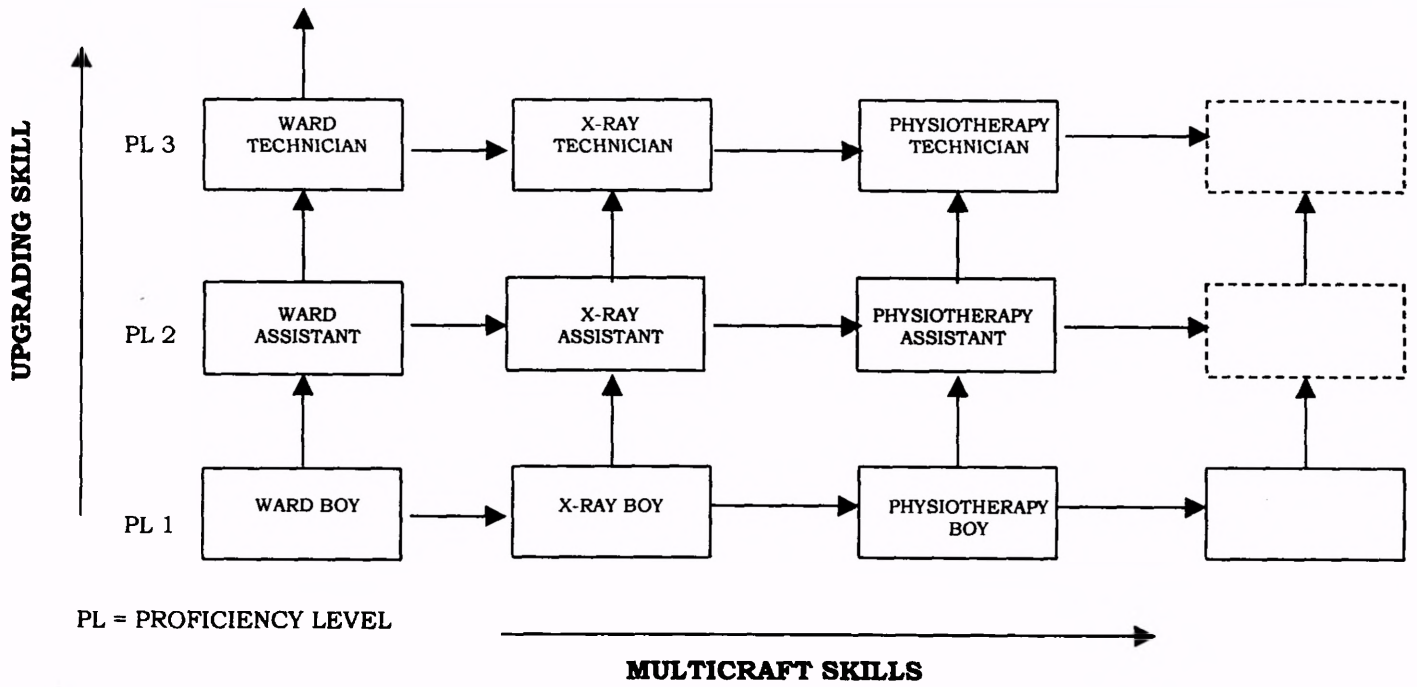


PL = PROFICIENCY LEVEL

Note: Wherever feasible, an individual can also move diagonally across various crafts/ vocations

⁹ Source: Study Group Discussions

Figure 4.1(B) Proposed Training Approach (Paramedical)¹⁰



¹⁰ Source: Study Group Discussions

Figure 4.2 Breakup of modules into sub-modules¹¹

	1	2	3	4	5	6	7	8	9	10	11	12	13
1	A			B		D						Task To Be Completed By Group Team Work E	
2				C								Task To Be Completed With Group Machines F	
3													
4													

	DESCRIPTION		WEEKS
MODULE	A	Basic and allied skills	12
	B	Maintenance skills	4
	C	Inspection skills	4
	D	Basic trade skills including hi-tech areas	24
	E	Project to be completed by team	4
	F	Project to be completed by working on multi machines simultaneously by trainee	4
	TOTAL		52

¹¹ Source: Study Group Discussions

Figure 4.3. Modular approach to cross-functional training

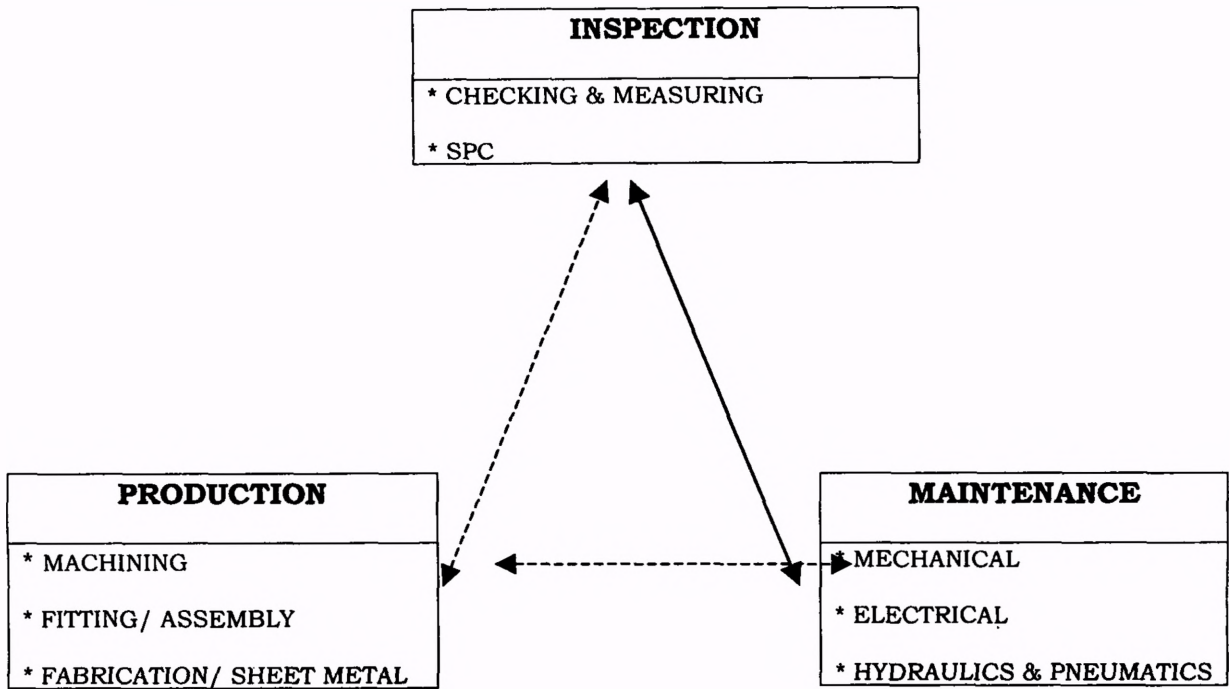


Figure 4.4: Cost Effective Training Plan (Optimal use of Training facilities)¹²

ALLIED TRAINING : ROTATIONAL PROGRAMME								
WEEK NO -->	1	2	3	4	5	6	7	8
TRADE	AREAS OF TRAINING							
GROUP :1	<i>MILLING</i>	TURNING	GRINDING	WELDING	ELECTRICAL	SHEET METAL WORKING	TPM	INSPECTION
GROUP : 2	INSPECTION	<i>MILLING</i>	TURNING	GRINDING	WELDING	ELECTRICAL	SHEET METAL WORKING	TPM
GROUP : 3	TPM	INSPECTION	<i>MILLING</i>	TURNING	GRINDING	WELDING	ELECTRICAL	SHEET METAL WORKING
GROUP : 4	SHEET METAL WORKING	TPM	INSPECTION	<i>MILLING</i>	TURNING	GRINDING	WELDING	ELECTRICAL
GROUP : 5	ELECTRICAL	SHEET METAL WORKING	TPM	INSPECTION	<i>MILLING</i>	TURNING	GRINDING	WELDING

¹² Source: Study Group Discussions

Tables

Table 4.1 Training Systems

System	Countries	Main Feature
<i>"Co-operative"</i>	Austria, Germany, Switzerland, many countries in Latin America	Pressures to undertake training resulting from strong co-operation amongst employers' organizations, the state and trade unions
<i>"Enterprise-based"</i> - Low labour turnover	Japan	Low labour mobility, life-time employment for many staff, "long-termism" arising from absence of stock market pressure. Wage system based on seniority and enterprise-based trade unions
- Voluntarist	United Kingdom, United States	Few institutional pressures on firms to provide training
<i>"State-driven"</i> - Demand-led	Hong Kong, Republic of Korea, Singapore, Taiwan, China	State plays a leading role in coordinating the demand for and supply of skills. Operates in an open and competitive economic environment
- Supply-led	Economies in transition; many developing countries, especially in Asia & Africa	Government takes on a prime responsibility for formal sector training in training institutes. Little or no pressure on employers to train

Source: World Employment Report 1998-99

CHAPTER - 5**RECOMMENDATION: COMPETENCY BASED TRAINING SYSTEM****5.1 Salient Features**

In order to meet the new challenges facing the Indian workforce, the Study Group recommends setting up of a competency based continuing training system covering all sectors of the economy. The training system will have a well-defined certification system for the competencies acquired during the program. It will help in providing learning, training, retraining, assessment and accreditation opportunities, with desired academic flexibility to those who wish to achieve higher skill standards and performance at work place. This means that the person is free to leave the training and join work as and when they feel that they have received adequate amount of training. After some time they can again join in for training if the situation demands or they feel a need to upgrade or shift laterally.

The purpose of competency based training (CBT) is to develop a competent workforce which will consist of individuals who can consistently perform work activities to the standards required in employment over a range of contexts or conditions.

CBT differs from the traditional training on the basis on which the training cycle is operated. In CBT the basis of training design is explicit, standards of performance are measurable and reflect the actual expectations of performance in a work role.

The key features of this approach are:

- a) Competencies to be demonstrated are derived from the job function/ roles of different category of the employees.
- b) The methodology for assessing the performance is based upon achieving specified competencies and is made public in advance.
- c) The rate of progress through the training programme is determined by demonstration of competency rather than time required for completion.
- d) The learning programme is individualised as far as possible, through the use of instructional modules for each competency, which offer different instructional alternatives.
- e) Some of the competencies like leadership, team work will be developed in group situations during the contact sessions.

5.2 Model for Competency Based Training

A model for Competency based Training for developing required competencies is given as Figure 5.1. It consists of four core areas:

- a) Identification of Competency Requirements
- b) Preparation of Modules for Instruction
- c) Programme Implementation and
- d) Evaluation

5.2.1 Identification of Competencies

The first step in the development of this CBT method is the identification of the target group for which the CBT programme is being designed. The target group is that category of the people, which have to undertake a specific vocation (occupation) after the stipulated programme of study. Their occupation (when technical education is considered) could be at various levels such as craftsmen/ technicians/ engineers etc. Every occupation consists of a number of jobs (role) that are to be performed.

Identification of competencies is done by analysing the job functions, receiving feedback from pass-outs, employers and trainers looking into personal growth needs and assessing the future requirements of the occupation. Identification of competencies will also provide a list of some attitudes, which are desirable for performing the job proficiently. Desirable attitudes represent those qualities relating to the readiness and willingness in the employee to use cognitive skills and practical skills in the work situation (without much hesitation, ability to work as a team member, take leadership, be sensitive to the environment) and those qualities, which deal with feelings, emotions and interests. An example of the competencies required by a Plumber attendant at the lowest level (new entrant) are summarised in Table 5.1.

The next step is to identify who should be deciding the group of competencies to be included for a particular level of job/role. A systematic and scientific process calls for a group consisting of all the stakeholders such as representatives from the industry and educational institution that will undertake this work. Alternatively, Needs Assessment Boards (NABs) comprising the stakeholders can be established, whose function will be focused on assessing, compiling and standardising competencies required for selected occupations, on continuous basis, for near future and far future for the labour force of un-organised sector.

5.2.2 Preparation of Modules for Instruction

After identification of competencies, skills and enabling objectives for a given training programme, development of instructional modules will start. The instructional process is through modules and the module will have the following characteristics:

- a) The focus is on a competency consisting of distinctive identifiable skill/ skills.
- b) Modules are individualised to allow the learner to work at their own place.
- c) It would blend theory and practice, reading, reflecting and acting.
- d) It would include an objective assessment procedure to the extent possible, whether self-monitoring or requiring partner/ observer or both.
- e) It would be reality oriented involving the learners in real or simulated situations fairly directly and immediately.

5.2.3 Programme Implementation

The three critical factors on which the success of the implementation of competency based training depends are:

❖ Feedback on programme

A CBT programme will function effectively if appropriate strategies are put into place which will gather information leading to modifications in the programme. Such strategies could include normal feedback channels from learner, their employers and the faculty involved in implementation. Yet another strategy could be the research into the job performance of employees before and after attending the CBT programme. It may also be possible to explore a mixture of such strategies to provide reliable data on which decisions could be based.

❖ Resource Mobilisation and Delivery

The modular approach with its emphasis on individualised instruction demands a great deal of updated learning materials. Hence there should be planned generation of resources such as filmstrips, slides, video CDs, apart from the usual print material. Provision has to be made for competency testing at different stages, as the concept of an end or terminal examination is no more valid. Further, considering the need to provide basic occupational competencies to a large number of learners in a short time, it may be possible to identify a select group of competencies to be included in the first phase of the CBT programme, which may be about one to two months duration or more, depending on the needs of the clients. In subsequent phases optional competencies could be offered. An achievement of about 75% of the competencies offered could lead to career advancement.

❖ Commitment

Another key factor for the successful implementation of the CBT programme is the commitment of the institutions and the individuals responsible. Such commitment could be ensured by involving the entire faculty at each stage of development and implementation and by adopting a group strategy.

5.2.4 Evaluation

The evaluation in the CBT model means evaluation of learners and evaluation of programme effectiveness.

❖ Evaluation of Learners

Competency assessment is carried out through post test(s), for each competency. A learner who demonstrates the performance of the competency up to a pre-determined proficiency level is declared successful (pass).

Separate tests may be designed for evaluating the knowledge component, skill component and attitude assessment. The knowledge component can be assessed by a written test using objective and short answer questions. It is not necessary that every competency will have a component of knowledge assessment. This will depend upon specific requirements of the competency. The skill component may consist of assessment of cognitive skills and/or psychomotor skills depending upon the requirement of the competency. This assessment can be either in a simulated situation and/or real life situation. For the attitude assessment, no standard questionnaires are suggested. However, the instructor will assess this component by responses got through the questions/ exercises from each learner during the classroom/ field exercises, formal and informal interactions.

❖ Evaluation of Programme Effectiveness

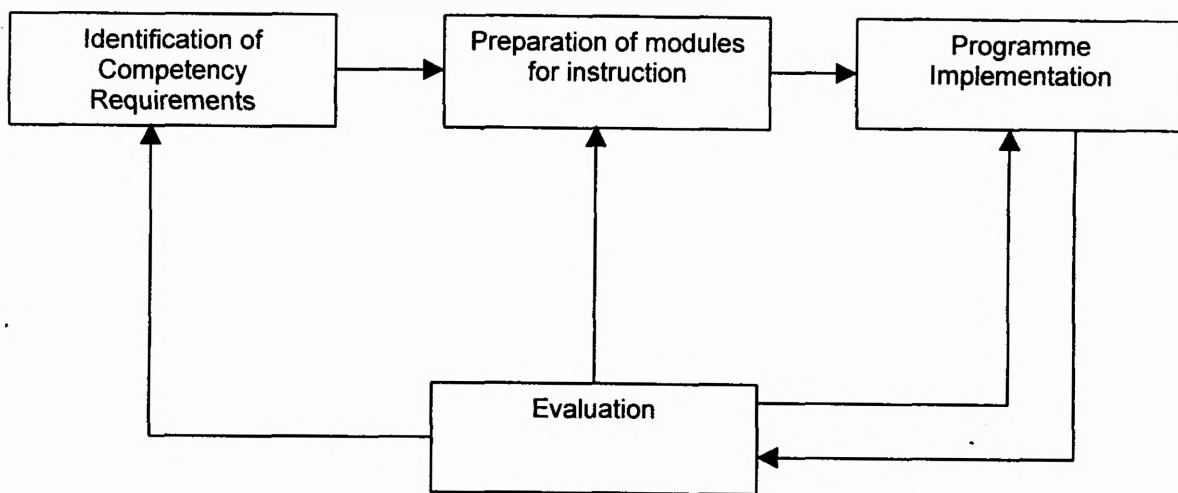
As mentioned earlier, the success of the CBT method depends partly on obtaining the feedback and using it to modify the programme. A programme can be modified from time to time to refine the module objectives, improve the learning experience for the trainees, and upgrade the learning materials it uses. The programme evaluation should also attempt to address the criteria for performance assessment and objective attainment.

5.3 Conclusion

The competency based training system is applicable to the labour force **both** in the organised and the unorganised sectors. As has been indicated in the illustrative example pertaining to plumber attendant, this system can be effectively used to develop competencies of any job/vocation in all sectors of economy, such as manufacturing, service, trade and agriculture.

Figures

Fig. 5.1 Model for Competency Based Training (CBT)¹³



¹³ Source: Model for Designing Competency Based Training, Prof. PC Jain et.al.

Tables

Table 5.1: Plumber Attendant (Competencies)¹⁴

S. No.	Task	Knowledge	Skills	Personality Traits
1.	Handling of plumbing tools	- Types of plumbing tools	- Identification of plumbing tools - Handling & uses of tools	- Carefulness - Alertness
2.	Various Operation involved in plumbing, e.g., cutting, threading, jointing, etc.	- Types of pipes - Types of various operation	- Identification of pipe - Laying of pipe - Types of jointing - Installation of plumbing fixtures	- Hard work - Skillfulness - Accuracy
3.	Fitting of various fixtures and domestic appliances	- Types of fixtures/ domestic appliances such as cocks, showers, traps, water meter, valves, sink, fitting, basin, bath tub, urinal posts, etc.	- Identification of fixture domestic appliances, selection of fixtures - Handling of fixtures - Assist the plumber in all plumbing operations	- Keenness - Accuracy - Carefulness

CHAPTER - 6**RECOMMENDATION: COMPETENCY BASED CERTIFICATION SYSTEM**

Many developed and developing nations the world over have evolved a standard of certification of competencies at different levels. Applicable normally to formal education and training programmes, it can be extended to courses or modules in informal training programmes, as and when required. Some of the certification systems as they exist in foreign countries have been mentioned as Table 6.1.

In India there is a large network of ITIs, Vocational Schools, Institutions, Export Promotion Councils, Commodity Boards, KVIC/KVIBS, KVKs, Community Polytechnics, Extension Centres of Agriculture/ Horticulture, Universities, NGOs, Professional Bodies & Associations, Chambers of Commerce and Industries, Confederation of Industries at district, state, regional and national levels, etc. conducting large variety of formal and non-formal training programmes. These sectors include: Agriculture and allied activities, Mining & Quarrying, Manufacturing, Electricity, Gas & Water Supply, Construction, Trade, Hotels, Tourism, Transport and Communication, Financial, Real Estate and business services, Community & Social services and Personal Services. The annual training capacity of the various formal training providers has been mentioned in Table 2.6.

In order to make the infrastructure more productive and efficient, a national level certification for different trades/ skills is recommended. An independent professional body needs to implement competency standards in all vocational trades. Active user involvement in defining quality standards and ensuring that these are duly implemented can be done only by involvement of user associations or individual experts from user sectors.

6.1 Independent Regulatory Authority

It is recommended that an independent regulatory authority be constituted by the Government, whose functions shall, among other things, include setting standards for skills required for a particular competency, standards for programme implementation and standards for accreditation of institutions imparting training programmed for skill development and retraining. Such an authority needs to have statutory powers in formulation of policies (including the mechanism of fees and funding), action plans and programmes for providing a continuing, coordinated and fully integrated skill development programme. A case in example is the National Council for Vocational Qualifications (NCVQ), which was created in 1986 in the United Kingdom (UK). The NCVQ in turn accredited over 150 industry associations to develop standards for their industries. Supplementation of the NCVQ in UK gained momentum, though slowly, and by 1998 about 2.2 million NCVQ certificates were awarded. The NCVQ is now known as Qualification and Curriculum Authority (QCA) and contracts with the National Training Organisation (NTO) to develop standards and provide training.

The independent National Authority will have the following functions:

- a) Formulation of policies, action plans and programmes for providing a continuing, coordinated and fully integrated skill development programme
- b) To set sector wise standards for skill acquisition, development and training programmes.

- c) To work out plans for more participation and involvement of industry in vocational education.
- d) To allocate resources amongst programmes and schemes.
- e) To monitor and review various vocational education programmes and make changes based on the feedback.
- f) Accreditation of training institutions/ organisations.

The National Authority can also seek support of another agency, which will solely focus on qualification and curriculum development. This institution may be made responsible for accreditation of training providers and setting up of sector wise skill standards on which the curriculum gets developed. It may be mentioned that the training providers/ institutions which will be accredited for providing certification will be required to get their systems and processes revalidated after a prescribed period of time.

6.2 Certification System

A person who has gained relevant knowledge and skills, formally or informally in a designated occupation can undertake an Evaluation Test for certification and recognition of his/her qualification (of competencies). This means that certification of trainees/ learners is competency based. Accredited persons and institutions, can conduct the tests at specified intervals. As the training is modular, credits will be assigned after completion of each module depending on the performance at the test. The agency for qualification and curriculum development will also prescribe minimum credits essential for job positions belonging to categories of technical workforce and would include compulsory accumulation of a minimum number of credits related to ones' jobs.

The credits will be valid for a predefined period, thereby necessitating revalidation of the competency. In case a person already possesses competencies, gained hereditarily or formally or informally, through distance learning systems such as Internet, self-learning modules, previous work in a work place or training in an organisation, he/she can appear for the test with the accredited person (assessor) or organisation for testing and certification of the level of prior learning. This would help a person in assessing their competencies in a particular field and also in deciding the modules to be offered for obtaining a particular qualification. Accreditation of prior learning can be gained through the formal or informal education and training method. It could be obtained by an individual in an institutional setting or a course undertaken at an industry training centre or 'on-the-job'.

It is also desirable that certification of competencies be done with actual involvement of the user organisations like employers, industry and other user systems. A conscious effort must be made to involve the trade unions to contribute effectively in this endeavour.

A case in example is of TAFE, Australia where a competency based certificate is issued in a modular manner upon completion of a unit of up to 40 hours of training in a week. Such units can be accumulated over time and can be used for certification based on modules completed.

6.3 Entry qualifications and Re-certification of Instructors

In order that the training is effective at the grass root level, it is essential that the trainers are highly skilled and they also are subject to re-certification of their skills after a set period of time. There is a need to strike a balance between the skill level of the trainer and his/her pedagogical abilities. If the trainer is not a master craftsman, it might turn out that the focus is more on the theoretical aspects and the practical part gets less attention. Also, the trainers/ instructors are to be re-trained in a planned manner for keeping up to date with the changes, which are taking place both in their skill development field as well as the methods of training for skill development. The industry itself can prove to be an appropriate source from where training talent can be recruited for a full time role as skill developers.

6.4 Conclusion

The competency based certification system is applicable to the labour force **both** in the organised and the unorganised sectors. It is not only the trainees who have to be certified, but also the trainers under this system. It will also enable persons, who have acquired skills hereditarily, by experience on the job without formal education; by acquiring skills through self learning, Internet as well as other methods (as outlined in section 2.3), to get certification. They can use this certification to enhance their earnings as well as employability.

Tables

Tables

6.1: Certification Systems in few countries¹⁵

United Kingdom: United Kingdom (UK) has evolved a National Vocational Qualification (NVQ) at five levels. These proceed from NVQ – 1 at certificate level to NVQ – 5 at Higher Diploma level passing through stages of advanced certificate, diploma, advanced diploma, etc. The basis here is to recognise performance at higher complex levels of advanced skills at par with those offered in formal education programmes, depending upon their levels such as diploma, degree, etc.

The colleges of higher education offer competency based vocational education with modularisation of curricula. They conduct conventional courses, general academic programmes, access programmes, retraining and outreach programmes and short training and recreational courses. NVQ originally assessed performances in work place, pass or fail. At present they have modified it to include college based courses and assessment at colleges also.

South Korea: South Korea conducts three months to one year training programmes for full time or part time for developing job skills. The Ministry of Education accredits the training institutions for equivalence of qualification with those of the formal system of technical and vocational education and training. Skill certification is done by Korean Skill Certification Corporation based on proficiency in skills as a skilled worker or a technician. Skilled workers

¹⁵ Source: Report of Working Group on Skill Development & Training, Planning Commission

are graded as Master, Grade- I, Grade- II and Assistant. Technicians are graded as Master, Grade-I and Grade- II.

Philippines: Philippines conducts non-formal education for literacy, employability, development of technical skills and for development of values and attitudes. Many Ministries and Boards offer non-formal vocational training programmes and accreditation/ certification is according to standard criteria.

Singapore & Mauritius: These countries have evolved a policy for certifying skilled workers in three levels starting from National Training Certificate (NTC)-III at the lowest, NTC-II and NTC-I levels. These are considered as equivalent to certificate, advanced certificate/diploma and higher diploma levels.

USA: In USA, certification is done normally at State/ District Levels. The informal education consists of a bewildering set of different activities and programmes. These are provided by employers, labour union funds and secular philanthropic groups as well as by schools and colleges through extension and continuing education.

CHAPTER - 7**MORE RECOMMENDATIONS ON SKILL DEVELOPMENT, TRAINING & WORKERS'S EDUCATION**

In the previous Chapters, recommendations have been already detailed in respect of:

- (a) Modular Approach to Vocational training enabling Multiskilling (Chapter 4)
- (b) Competency based Training System (Chapter 5)
- (c) Competency Based Certification System (Chapter 6)

There are applicable to labour force both in unorganised and organised sectors. Apart from these, the Group makes the following additional recommendations:

7.1 Increasing Literacy levels of labour

Keeping in view the fact that 44% of the Indian workforce is illiterate, the current literacy programmes initiated by the central and state governments should also be targeted at the future entrants into unorganised and organised labour market.

7.2 Assessment of Training needs through Competency Assessment Boards/ Groups for Unorganised sector

For implementation of Competency Based Training across all sectors of the economy, it is imperative that the competencies for various occupations are established. This also requires imparting attitudinal training requisite for the occupation for which the learner is being trained. Competency Assessment Board needs to be established at the National Level, which will focus on assessing, compiling and standardising competencies required for selected occupations on a continuous basis. The competencies will be identified by interactions with the industry associations, detailed regular surveys aimed at projecting the nature and characteristics of the unorganised sector activities and its workers. It will also focus on curriculum development including attitudinal training requirement for the various occupations.

The competencies will be identified by interactions with the industry associations, by utilising the services of various specific institutions, and through detailed regular surveys. The aim of these surveys will be to project the nature and characteristics of the unorganised sector – its activities and its workers. They will contribute information that is relevant for structuring the curricula of Competency Based Training programmes.

7.3 Self-employed Training in the Unorganised sector

As has been observed in this report, a large part of the employment is being generated in the services sector and mostly there in the self-employed sector. The self-employed sector requires additional skills in the area of accounting and marketing which cannot be imparted through structured formal training. It is felt that "mentors" in actual business conditions will help in the development of skills. The Bhartiya Yuva Shakti Trust, which is a CII initiative established in 1991, is one of the relevant models in this context. The details of this model can be had from CII, New Delhi. The Trust fosters entrepreneurial activity by providing seed capital loans and practical business advice through mentors. About 1700 people have been

employed in 500 ventures between 1991-2000 spread over rural and urban areas. However, it is worth noting that the loan recovery rate is 94%, indicating strong economic viability. Skill development and Training in the construction trades and a three-step approach for achieving it, has been given in Annexure V.

7.4 Training of rural labour

In order to undertake development of rural areas in the true sense, the country would be required to establish training institutions at the doorsteps of the rural masses. It would be appropriate to establish Block Level vocational education institutions, in a phased manner in each block, so that the country can economise on creation of large infrastructure for such institutions. These institutions are to be set up with the financial support of government, NRIs, corporate sector, NGOs. These institutions should aim at two important levels (a) spread of literacy and (b) spread of vocational education with a view to create marketable skills and continuous employability of the rural labour.

7.5 Role of Trade Unions, NGOs & Other Interest Groups

The objective of achieving a skilled workforce is possible only when all the stakeholders act as partners in training. Trade unions at the national, regional, industry and plant level should all have a say in the running of workers' education programmes.

The Non Governmental Organisations (NGOs) provide an effective interface between the organised sector and the unorganised sector. NGO's provide the most conducive means for providing training at the small and micro level. As unorganised sector workers require training linked to specific production activities, the NGO's play a vital role in achieving this objective. The Government's decision to support the voluntary organisations from the VIIth Plan period onwards was based on the realisation that voluntary organisations not only provide a new modal approach to the rural development but also secure the involvement of families living below the poverty line in the developmental efforts.

The role of the NGO's assumes more importance in view of the fact that India is a vast country with immense occupational and cultural diversity. With a vast population of Indians living in the rural areas being illiterate, training by formal means becomes difficult. The NGO's are also equipped for capacity building as they can introduce innovation and experimentation since they are unencumbered by Government Rules and Regulations.

The Study Group conducted two workshops especially in the Unorganised Sector on Skill Development, Training and Workers' Education (inviting participation from Non Government Organisations, Trade Unions and Academia), to share the experiences of the participants in providing skill development and education in the unorganised sector. The findings from these workshops have been mentioned as Annexure I.

7.6 Forecasting of marketable skills through establishing Labour Market Intelligence System

For better matching of demand and supply of marketable skills, a labour market intelligence system needs to be set up. This system will forecast the demand of various marketable skills at the national level and at the district level through the existing government machinery but in consultation with the industry associations, entrepreneurs, experts, NGO's, etc. on a continuous basis. This system would take into consideration existing and emerging business opportunities in India and abroad. This system will be applicable for forecasting of marketable skills in both the organised and unorganised sectors.

7.7 Strengthening of ITI's and support from the Industry

At present, there is insufficient capacity in the areas of skill development and training. Hence a pressing need to enlarge the training infrastructure as well as utilise effectively and productively the existing infrastructure. While infrastructure is available in the form of 4274 Industrial Training Institutes (ITI), there are a number of problems with the ITIs. They need to restructure and reorient their courses at a much faster rate and effectively respond to the current and future needs of the labour market. Further, the Industry- Institute interaction continues to be weak. So far inputs from the industry into ITIs are merely of advisory nature, which are not very effective. A need is there for advisory inputs to be supplemented with managerial inputs.

It is, therefore, recommended, that ITIs need to:

- (a) Run market driven courses.
- (b) Review and if necessary, revise curriculum every five years to keep it contemporary.
- (c) Give refresher training on new technologies and tools to teachers at ITIs.
- (d) Discontinue obsolete (not required by market) courses.

Further, for ensuring effective involvement of industry in the training process, it is recommended that some ITIs may be selected on pilot basis for developing into Institutes of Excellence. They should be managed jointly with the industry. In this regard institutionalization of Industry-Institute interaction and empowerment of training institutions would be important.

It may be mentioned that in 1997, a study was made in eleven ITIs in North India with the participation of senior officers from DGE&T, State Directorates, CII and local industry representatives. In January 1998, CII organised a workshop on "Industry-Institute Interface for the years 2000 and above". One of the major recommendations of this workshop was to set up an Institute Managing Committee (IMC) with the participation of local industry for at least one ITI in each State. It was also proposed that a Steering Committee at the State level, be constituted, which would decide the powers to be devolved to the IMCs. The suggested composition of the IMC with roles and responsibilities is mentioned as Annexure III.

The IMC model has been already tried successfully in ITIs located in Northern States.

Broad areas of co-operation and key areas of responsibilities of Industry and Institute are given as follows:

Responsibilities of Industry

- The local industry will assist in recommending and monitoring the future needs of the local areas and suggest the courses which institute should focus on.
- Selection of candidates at the entry level.
- Development of training curriculum and upgradation of existing and new courses.
- Faculty upgradation and development.
- Industrial visits of Trainers and Trainees.
- Providing slots for actual hands on experience.
- Joint R & D Projects.
- Sharing of testing and inspection facilities.
- In-plant training of faculty / students.
- Advise on generation and utilisation of revenue for the institute.
- Participation of experts from industry in invigilation and as part-time lecturers.
- Assistance in placement.
- Accreditation of Institutes and Faculty.
- Organising continuing educational programmes for working professionals.
- Recognition of blue collar workers by way of special awards and publicity material.

Responsibilities of Institute

- Ensuring quality of theoretical inputs.
- On the job training to the students.
- To encourage faculty for upgrading their knowledge through visits or short term training courses.
- To generate revenues through short term training courses for the existing workers of the local industry.
- Proper maintenance of building and workshops of the institute.

7.8 New Training Delivery Systems

In order to expand training capacity as well as to provide training anytime, and anywhere, new delivery mechanisms such as computer based training, web-based training, distance learning, etc. can be adopted, which would offer flexibility in timings, pace of learning, and customisation of content to serve the varying needs of the different target groups.

7.9 Integrating vocational education at school level

In view of the large number of individuals entering the workforce, vocational education should be integrated at the school level. This will also help in standardisation of training courses. It is relevant to consider in this context whether vocational training should be added onto the general school system or whether it should be imparted through separate schools. However, some of the trades such as masonry, the school students should be allowed to enter the courses after 8th standard (due to low skill level requirement).

7.10 Incentivisation of Training through benefits

In order that skill development and training get the due focus, it is felt that fiscal incentives should be extended to industry and other providers of training. They can be given incentives by the government in the form of providing land at concessional rates, a part-funding of the capital cost, tax benefits on the amount spent by them for training and skill development, awards, teachers' training, provision of training material, etc. The same can also be extended by way of tax sops on the amount spent on training and skill development.

It is also recommended that the entire expense in training should be treated as a revenue expense and all capital expenditure on training and infrastructure should be eligible for an accelerated depreciation equal to 1.5 times the amount spent during the same financial year. The investment in training and infrastructure is made to encourage the culture of training and to improve the skills and attitude of performance.

7.11 Skill Development Fund (for next 10 years, subject to review)

As per the World Bank report on Skills Development, well-designed levy-grant schemes can induce firms to train. Several East Asian economies have effectively used direct reimbursement of approved training expenses, funded out of payroll levies, to encourage firms to train their employees. Successful schemes - such as those in Singapore, Malaysia and Taiwan - are flexible, demand-driven, and often accompanied by an information campaign and a programme of technical assistance to smaller firms. The introduction of such a scheme in Taiwan led to dramatic increases in the volume of training, which continued even after the programme, was terminated in the 1970s. The Study group has reviewed thoroughly such programmes, which are prevalent in Singapore and Malaysia, besides the system prevalent in other countries. These have been mentioned in Annexure VI.

In order to provide for:

- (a) Retraining of workers rendered surplus/ obsolete by lay-offs, retrenchment and Voluntary Retirement Schemes/ Early Separation Schemes,
- (b) Training of labour in the unorganised sector;

the Group recommends establishment of a Skill Development Fund (SDF), in the manner it has been established in Singapore.

The key features of the Skill Development Fund are as follows:

- (a) The fund will be contributed by organisations which are eligible to contribute Provident Fund either through the Provident Fund office or through their own trust.
- (b) The amount of contribution to be paid by such organisations will be 2% of the provident fund contribution by the employer. In addition, the employee will also contribute 1% of his/her provident fund contribution. The government will also contribute every month, two times the amount collected from the employer and employees to this Fund. A proposed source of the government's contribution is by way of amount received from disinvestment in public sector units.
- (c) For the purpose of collection of the contribution, it is proposed to be routed and administered through the Regional Provident Fund (PF) Office (as per the system prevalent in Singapore), so as to avoid extra administrative burden. The PF office will receive the contribution along with the Provident Fund and deposit the same into a separate account within a week of the receipt. It is reiterated, by the Group that no new collection mechanism involving additional government machinery should be devised.
- (d) The respective individuals/organisations making this contribution to the SDF, will be given tax concession for an amount equal to the amount contributed to the SDF.
- (e) At all points of time, 25% of the total amount in the SDF will be invested in a corpus with high safety and reasonable return. The balance amount in the SDF will be used for purposes mentioned above.
- (f) The collections to this SDF, shall continue for a period of 10 years. It is expected that by that time the SDF corpus would be self-sustaining. Thereafter, contributions to the SDF should be discontinued. However, this is subject to review based on the requirements of the labour situation at that point of time.
- (g) The utilisation of the amount so collected in the SDF, should be monitored by persons of eminence and reputed industry associations in association with the Central and State governments.

Further, for granting the amounts to be paid by the Fund as an incentive to the organisations, certain norms may be required to be set. The organisations fulfilling the norms make an application, giving details of the training efforts being put by them. After evaluation of the quality of training efforts and the quality of trainees turned out, a committee may prescribe the grants. Guidelines for committee formation and identifying norms can be explored further in consultation with experts.

The grants offered to organisations by Skill Development Fund as an incentive for promoting skills would also help in developing a training culture among employers as well as employees and ultimately it would help to build a world-class workforce for the nation. The fund would also encourage industries to further strengthen their training infrastructure and commitment towards training. Efforts could be directed in identifying high-end skills critical for economic growth and encouraging employers to invest in such skills. This will help in increasing the

reach of training, to promote skill deepening and in enhancing the employability of workforce.

7.12 Coordination of Training Efforts

Various ministries of the Government of India are providing vocational education and training systems in India (refer table 2.5). The Government should find out ways and means to coordinate the work of the Ministry of Human Resource Development, Ministry of Labour, Ministry of Rural Development and Ministry of Industry, to avoid duplication.

7.13 Workers' Education

Workers' education is a special kind of education designed to give workers a better understanding of their status, rights and responsibilities as workers, as union members, as family members and as citizens. It differs from vocational and professional education, which is for individual advancement whereas the workers' education places emphasis on group advancement. Workers' education also enables the workers to assess the approaches and technical skills of professional management.

7.13.1 Importance

The emerging economic scenario has brought great changes not only to the ways of working and transacting business but also to the management of households, upbringing of children, cultural activities, leisure and social relationships. Success of all technical trainings will depend not only on the acquisition of work skills but also on the values and attitudes imparted by general education. Education and training have also objectives in addition to vocational ones, because they open up access to culture, to knowledge and to political and social life and are essential factors in the development of the individual. If the training of the workers is purely technical they are unable to, adjust to new values, new concepts of the nature of work, new ways of interacting with their peers, colleagues and with the work itself. This brings out the fact that workers' education has to continue and upgrade itself to the expectations of the target groups to achieve their goals.

Thus, a comprehensive programme of education of workers has to be established with the following key objectives:

- i. To instill a sense of belonging of the worker to their work and organisation, through a better understanding of their work and the work organisation; to inculcate amongst workers a positive sense of dedication and hard work so as to achieve higher productivity and improvement in the quality of products;
- ii. To improve the bargaining power of the workers, through understanding of their rights and environment, and through organising and collective bargaining;
- iii. To assist the worker in identifying skills he/she needs to pick up in order to improve value in the job market, and to provide the avenues for acquiring the skills;

- iv. To encourage the workers to look at alternatives in organisation of their work, like worker cooperatives, in order to improve their collective bargaining power and their quality of work; specialised programmes may also be conducted for creating interest in self-employment or to have skill upgradation in the situation of job loss;

7.13.2 Coverage

The education programme should not be a mechanical approach of skill development towards a changing job market. It has also to look at the vital question of allowing the workers to understand the environment and processes of which they are a part. They should be enabled to have a say in the way in which the processes affect them, through programmes that improve their individual and collective bargaining abilities.

It is in this context that the education process should specifically focus on an understanding of the economy, industry and the business organisation of which the worker is a part. The scope should include understanding the business and work processes along the supply chain. It should include the potential for workers to keep abreast with changes in technology and work processes in the industry of which they are a part.

The education programme should also look at issues of alternative forms of organisation, as ways of improving the involvement and control of workers over their work. These include forms of self-organisation, including producer and consumer cooperatives. These alternatives are particularly significant in the context of current business strategies of dispersal and contractualisation of work.

The programmes should also discuss organisation of workers, and the history of collective bargaining. The new working class should be able to identify its lineages with the older worker class traditions in order to grow organically and retain a collective identity. This collective identity is essential for a sense of their worth, and for their retaining some control over their work life.

7.13.3 Organisation

As is evident, such a programme cannot be confined to the classroom. There has to be a context of continuous education. The education process should allow continuous interaction and consultation between various participants in the labour movement. It should encompass the process of tripartite negotiations and collective bargaining between management, government and labour.

7.13.4 Ownership

The involvement of workers and workers' organisations in the design, conduct and control of such a training programme is essential to its success. As such, their prominent role in the ownership of the programme is necessary. Trade unions at the national, regional, industry and plant level should all have a say in the running of the programme.

7.13.5 Role of Central Board of Workers Education

Since its inception in 1958, the Central Board of Workers' Education (CBWE) has done significant work in injecting an understanding and enthusiasm among workers for the success of industrial growth, production and productivity and harmonious industrial relations.

The CBWE is a tripartite body, which is headed by a part-time non-official Chairman nominated by the Government of India. Director, CBWE is the Principal Executive Officer who is assisted by one additional Director, three Deputy Directors, a Financial Advisor and other supporting staff. The Board's Headquarter is at Nagpur and has a network of four Zonal Directorates, 49 Regional Directorates, 10 Sub-Regional Directorates spread throughout the length and breadth of the country and an apex training institute, viz. Indian Institute of Workers' Education at Mumbai.

Initially the focus of the Board's programme was on industrial workers, i.e., on workers of organised sector. As an outcome of the recommendations of the Estimates Committee of Parliament in 1971, Workers Education Review Committee in 1975 and Ratification of ILO convention No. 141 concerning organisation of rural workers and their role in economic and social development in the year 1977, CBWE launched programmes for workers of unorganised and rural sectors during 1977-78. Presently the Board organises 20 to 25 types of programmes for the workers in organised, unorganised and rural sectors.

The Study Group has identified certain areas where the CBWE can play a vital role in the following areas:

- CBWE can play an important role in creating awareness on specified skill trainings required for the development of the industry and availability of such training facilities. The Board may further coordinate such training programmes by bringing together workers, managements and nearby training institutes,
- Though CBWE organises training of trainer programmes, so far as conduct of classes in the unit level by the trainers is concerned, the performance has not been satisfactory. A suitable mechanism needs to be devised for regular training programmes through the trainers trained by CBWE. The Board can play the role of a nodal agency to enforce training programmes through the trainers and also monitor the same so as to achieve larger coverage of the target groups.
- CBWE through its wide network may organize specialized training courses for the retrenched workers/ workers who have taken VRS so as to help them in proper investment of money, which can ensure a regular income. These training programmes may also help in creating awareness regarding areas of skill development and related issues.
- CBWE should focus more and organized, specialized and need-based programmes for the various target groups in the unorganised and rural sectors. These programmes can also help workers identify opportunities, areas for self-employment.

- Co-operative is yet another sector in which there is ample scope for training by CBWE. There is a lot of demand from this sector for the training programmes of CBWE. The Board may, therefore, give suitable training programmes to the workers in the co-operative sector.
- As Panchayati Raj plays a crucial role in the Indian system of governance providing for effective local administration, the functionaries of Panchayati Raj institutions may be trained on a regular basis by CBWE in subjects of importance from the point of view of changing scenario
- There is a need for more follow-up programmes, i.e., to conduct more refresher courses/ repeat the training programmes for the same target groups by the Board as these alone can have a better impact and will sustain the effect
- The Board may also involve non-governmental organisations, academic institutes, etc. in conducting various training programmes. This is necessary for a larger coverage, as the Board with the existing strength cannot reach the entire workforce.

7.13.6 Leadership Development Programme

In an era of transformation, the trade union movement faces its own urgent need for adjustment, for the modernisation of its own stock of technical knowledge and operational skills, for the rethinking of policies and priorities, and for the training of leaders capable of forming and implementing the strategies needed to ensure that the best long term interests of workers are safeguarded. The problems of social and economic development can be surmounted only with the full, knowledgeable and responsible participation of organised labour.

A systematic re-education and training of workers based on their developmental needs and national interest demand a high place on the agenda. It is important that unions themselves take the initiative in studying these problems and that they focus attention on the long-term interests of workers. The training programmes organised by CBWE for trade unions must be re-designed to focus on the above areas.

7.13.7 Involvement of State Governments

At present, the Workers Education Programmes are carried out from the grants-in-aid made available by the Central Government. As majority of workers being trained belong to the States and their contribution by way of improvement in skills, work culture, personality development, leadership qualities, awareness of responsibilities goes in a big way to the State development, the State governments must also participate in the Workers Education programmes. State Governments may be approached for contribution to the scheme in either way, i.e., giving grants or providing infrastructure and other facilities.

7.14 Conclusion

The recommendations made in this Chapter have been made keeping in view the present profile of Indian labour and existing and future challenges of the Indian labour. As India integrates more with the global markets, there will be more emerging business opportunities especially in the area of knowledge based, technology driven and services industries such as Information Technology (IT) Enabled Services, IT Services, Biotechnology, Telecom, Tourism, Infrastructure, Healthcare, etc. These opportunities will change our perceptions of present and future challenges. This will call for working out additional and appropriate recommendations for the labour force in the unorganised and organised sectors.

CHAPTER - 8**ANNEXURES****ANNEXURE I: Training & Education Efforts In The Unorganised Sector**

The Study Group conducted two workshops on Skill Development, Training and Workers' Education in the Unorganised Sector inviting participation from Non Government Organisations, Trade Unions, Self-help groups, Individual Beneficiaries and Academia. The first workshop was conducted at Bhubaneshwar, Orissa and the other was conducted at Bhopal, Madhya Pradesh.

The Non Government Organisations (NGOs) which attended the workshops, were primarily engaged in the development of the following categories of workers, viz.

- Women workers
- Forest Dwellers
- Brick-Kiln workers
- Beedi workers
- Poor farmers and workers in agriculture and allied activities
- Child workers
- Dealers in wholesale and retail trade
- Workers in handicrafts and village industries including artisans

Based on the experiences shared by the participants, the areas in which training and education was being imparted are summarised as follows:

Training in the areas of:

- Collection of Forest Produce
- Processing of Forest Produce
- Honey gathering
- Cultivation of medicinal plants
- Crop production
- Animal Husbandry
- Food Processing
- Mushroom Cultivation
- Nursery & seed production
- Soil Conservation
- Multiskilling to facilitate yearlong employment
- Training in non-farm activities to arrest rural-urban migration

Education in the areas of:

- Management of natural resources
- Sharing of resources
- Sustainability of resources and ecological development
- Diverse uses of forest resources
- Use of improved nets and fishing boats
- Irrigation
- Organic farming
- Small farmers' technology
- Food security
- Preservation of agricultural output and fish

- Marketing of produce
- Entrepreneurial skill
- Living conditions improvement
- Promoting self-help groups
- Developing Labour cooperatives

Training Agents

Training and education on the above areas is currently being imparted through:

- Self-help groups
- Community voluntary organisations
- Bal Panchayats
- Peoples Associations
- Anganwadis
- Grassroot level workers like village level workers, basic health workers and anganwadi workers
- Family as a unit
- Local panchayat workers/ members

Observations on the Training Efforts

- There was no standardisation of courses in terms of either training content and curriculum, training aids and training materials or education/ generic skills.
- Quality of training imparted is not being viewed.
- No certification or recognition of courses for employment.
- Follow-up of utility of training was inadequate.
- Selection of trainers is not systematic.
- Training of Trainers was a neglected area.
- No agency for coordination of vocational training for the unorganised sector workers even at the national level.
- Training is not based always on training need assessment. Not every NGO assessed training needs before plunging into training.
- Inadequate effort in multiskilling, upskilling and lateral skill development
- Insufficient infrastructure support for training.

ANNEXURE II: Role Of Private Initiatives In Vocational Training

The Study Group co-organised workshops on "Private Initiatives in Vocational Training and its impact on Employment Opportunities in India" with CII-GTZ. These workshops were held at Chennai (Tamil Nadu), Bangalore (Karnataka), Hyderabad (Andhra Pradesh) and Ludhiana (Punjab) covering the southern and the northern sector.

The Study Group has identified seven key roles of private initiatives in vocational training viz.:

1. Education of Unorganised Labour to create higher supply by setting up and upgradation of infrastructure (land & buildings, machinery, materials) as well as providing capital.
2. Training of surplus labour to make them employable by providing infrastructure and trainers.
3. Retraining of existing organised labour for multiskilling and upskilling through reimbursement of fees, sabbaticals, by establishing linkages with educational institutions.
4. Part-time education of organised labour by providing infrastructure and trainers.
5. Certification/ Evaluation of Passouts, Trainers/ Teachers, Institutions/ Schools.
6. Undertaking content development of Education and Training materials, viz. books, CDs for ILT, CBT, WBT.
7. Establishment of future demand-supply linkages so as to capitalise on future WTO opportunities.

ANNEXURE III. Institute Managing Committee & Steering Committee¹⁶**Composition****Steering Committee For State/Union Territory**

1. Three Representatives – Industry
2. Senior Representative of Joint Secretary Level of respective Ministry
3. Secretary, State Technical Education
4. Principal/Director of the Institute, (By Rotation)
5. Representation of Trade Association

Institute Managing Committee (IMC)

1. One Representative from concerned Department
2. Representative from State Directorate of Technical Education
3. Four representatives from industry
4. Principal/Director of the Institute

5. One senior Faculty Member of the Institute
6. Representative of Trade Union
7. One student representative

Role And Responsibilities Of The Institute Managing Committee (IMC)

- **Generation and Utilisation of Resource** : The IMC should be free to generate funds through various projects from industry. These funds would be available to the IMC for utilisation as decided by them.
- **Students Selection**: The IMC may adopt various methods of selection according to the individual needs of each institute, e.g., Entrance test, aptitude test and viva.
- **Examination Supervision**: Examinations, theoretical and practical, will be supervised with the experts from industry.
- **Faculty Evaluation**: Faculty evaluation will be done by the Steering Committee and there recommendations will be taken into consideration for promotion.
- **Teaching Aids**: Teaching aids of the institute will be upgraded under the supervision of IMC.
- **MIS System**: Steering Committee will introduce an MIS System for each Institute. The format of such MIS System has already been created by CII.
- **Employment**: The IMC will be responsible for advising on the possibility of employment opportunities, including self-employment.
- **Faculty and Staff Development**: IMC will identify the training needs of all faculty and staff member. Detailed training schedules, budget and release of personnel for training programmes will be planned by IMC.
- **Industrial Training**: Industrial training will be compulsory for all the students and faculty of the institute. IMC will prepare guidelines for the industrial training with details of periods of training including projects for students and faculty. IMC will also decide about the stipend to be paid to each student and faculty by the industry providing training.
- **Transfer of Faculty**: IMC will be taken into confidence while transferring the faculty from one institute to another.
- **Equipment Maintenance**: The equipment maintenance of the institute for rectification of faults and replacement of the equipments will be supervised by IMC.
- **Capital Expenditure**: IMC will be consulted for the purchase of equipments including accessories and inspection equipment.

- Curriculum Revamping: IMC will be allowed to revamp the curriculum of any trade above the existing norms on industry needs base. IMC will be allowed to include new trades and discontinue the obsolete trades.
- Faculty Deputation: Deputation of the faculty from one institute to another will be made at the recommendations of IMC.
- Consultancy Rules: The rules for providing consultancy by the Institute will be laid down in consultation with the Advisory Committee.

ANNEXURE IV. German Dual System

Definition

The Dual System of vocational training can be defined as a combination of learning in the "serious" world of a company career and learning in the "protected" world of the vocational school, where the companies concentrate on imparting practical knowledge, while the vocational schools concentrate on imparting theory. The term "dual" also denotes a specific constitutional situation in Germany, in that the Federal Government is responsible for vocational education in the companies and the Länder for the vocational schools.

Financing of vocational training in the Dual System

Financing is regulated in different ways depending on the nature and task of the institutions involved in vocational training in the Dual System. While the (state) vocational school is financed from tax revenues, the companies (mostly private) cover the costs associated with vocational training themselves. Their expenditures for vocational training, thus, represent costs and they are passed on to the prices of the products and services as far as the market permits. They also represent company expenditures, which can result in tax breaks. Companies can receive subsidies in special cases and for special groups of youths, such as for the vocational training of handicapped youths on the basis of the Labour Promotion Act or for the promotion of the vocational training of women in commercial-technical occupations.

Although, the latest figures are not available, in the year 1992, Germany spent 2.43% of its Gross national Product (GNP) on vocational education in the Federal Republic.

Transition from the Dual System to the Employment System

It may be mentioned that companies are generally not obliged to keep on the trainees after they pass the skilled workers' examination. Conversely, the young skilled workers are free to accept an employment offer or to leave the company. Alternatively, the respective job market conditions, and individual decisions and plans on the two extremes, determine what happens to the trainees after they complete their vocational training. Statistics reveal, that the smaller the companies are, the more probable it is that the trainees are either unable or unwilling to stay in the companies after passing their final examination. On the employer's side, the hiring rate is also determined by the overall economic situation and the positive or negative development trend in the respective training companies. The hiring rate is lower when business is going badly, and higher when things are going well.

ANNEXURE V: Training And Skill Formation In Construction Trades¹⁷**Service Nature of the Industry**

The construction industry (barring real estate developers) does not really sell a tangible product; it sells a service. The service that it may provide is determined by its clients and is performed at a time and place specified by them. Contractors neither have control on the demand for construction services nor can they stimulate it. They do not even set a rate for their services as rate setting is done by clients. The financing of the construction services is also outside their control as the client who commissions the service does it. Only big integrated firms who employ multidisciplinary professional groups, permanent workforce and have access to national and international finance are an exception. But vast majorities of contracting firms operate in a product market where they have no control over demands, technology, materials, workplace, finance and labour supply.

Skill Mix

The nature of skill mix in building trades is of significance. The skills required to perform building trades varies considerably. A "majdoor" could easily be used to assist a mason, concreter, painter or a carpenter. But the skill requirements begin to increase as one moves up the technological ladder. Skills required to become a formwork and centering carpenter are different from those required in a furniture making carpenter. Similar is the case in masonry, plumbing, concreting, etc. Each of these trades is semi-dependent, though a part of the construction process.

Entry in the building job market is easy and quick at the bottom-end of the skill; the exit at this end is also easy though not as rapid. Unskilled workers keep moving in and out of the industry. But as the level of acquired skill grows, the opportunity for movement out of the industry declines. This is inevitable, as there is no demand for building skills in any other industry. They may change jobs from one contractor to an independent entrepreneur.

Existing mechanism and Efforts of Skill Formation

The existing institutional framework for skill formation in various construction trades is inadequate. The Directorate General of Employment and Training (DGE&T) in the Ministry of Labour is responsible for vocational training in the country. It runs, through state governments and private organisations and ITIs all over the country. ITIs impart training in 38 engineering and 26 non-engineering trades. The engineering trades include carpentry, plumbing, masonry and plastering, which though not construction specific, may be relevant to it. As a rule, the training is oriented to the manufacturing and service sectors. Courses are of one to two year's duration and admissions restricted to high school graduates. Very few construction workers have high school level education to qualify for admission or resources to maintain themselves over the long training period.

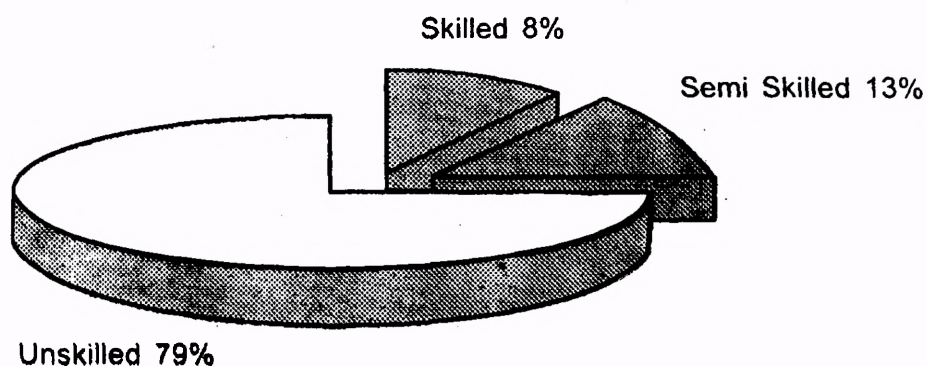
The other major programme for skill training is the Apprenticeship Training Scheme under the Apprentices Act, 1961. Of the number of trades in which apprentices may receive training, only three are construction specific (plumber, brick-layer and fitter). The national network of Building Centre also trains construction workers. As per the report of the Working Group on Skill Development & Training, about 2,50, 000 construction workers are trained annually, in different trades in various 640 Building Centres of HUDCO.

In the absence of any institutional mechanism for skill formation, construction workers continue to be trained by the traditional master craftsmen. Apart from its inadequacy in quantitative terms, the traditional system neither utilises new technologies and work methods, nor absorbs the benefits of research and development. Also women workers are not trained in any trade and they remain head load carriers or helpers, all their working life.

Size of Demand

It may be mentioned that authoritative serial data on the size of construction workforce and its distribution by skill are not available. It is estimated that about 310 lakh workers are working in the construction sector, of which 79% are unskilled. Out of this, 210 lakh workers are seasonal construction workers and the balance are regular construction workers. Women constitute 23%-27% of the construction work force. The classification of workers based on their skills are as follows:

CLASSIFICATION OF CONSTRUCTION WORKERS



(Source: Report of the working group on Skill Development & Training)

However, studies conducted by the National Institute of Construction Management and Research (NICMAR) bring out the following distribution over the period 1995-2005¹:

Category	1995-96 %	2004-05 %
Engineers	4.71	8.47
Technicians	2.46	4.43
Clerical	4.40	4.40
Skilled Workers	15.35	27.62
Unskilled Workers	73.08	55.08
Total	100.00	100.00

¹ Source: Employment Projections in Construction Sector, NICMAR, Jan. 1996

The distribution of manpower requirement by trades in various sectors is expected to be as under:

Trade	%
Unskilled workers	54.43
Masons	30.42
Carpenters	7.94
Plumbers	0.32
Electricians	0.47
Others	6.42
TOTAL	100.00

Worker Training Scheme

There are two basic objectives of providing training to develop skills in construction workers:

- a) To improve performance levels, quality of work, efficiency and productivity of the construction industry; and
- b) To improve the economic situation of workers in the job market, to enhance wage welfare conditions and make possible to upgrade their economic and social situation in the society.

For achievement of the above objectives, a three-step approach is suggested for training to develop skills in construction workers:

- a) Establish an institutional mechanism that imparts skills in construction trades in a manner that is acceptable to workers as well as contractors and remains relevant to the dynamic nature of the construction industry
- b) Create conditions that require contractors, construction firms and other employers to employ those workers whose skill levels are certified.
- c) Design a skill delivery system that gives skills to new workers, upgrades skills of the existing workforce and is flexible enough to allow certification of skills of those who submit themselves to testing and qualify.

Basic Parameters

- Training should be a judicious mix of formal and informal, on-site and classroom work, makes more use of graphics and visuals, be of short durations say 15 days in one spell and assume basic literacy and knowledge of local languages in trainees.
- Formulation of skill standards, trade tests and training procedures, qualification criteria for certifying agencies may be centralised to ensure uniformity and standardisation.

- Training methods and procedures and implementation may be totally decentralised with due regard to regional variations and local requirements.
- Contractors and their associations and trade unions may be encouraged to assume the maximum responsibility for training.
- Skill levels may be graded and upgradeable and formulated keeping in view the technology, materials and methodologies of the future. The system should look ahead at least two years from the start date.
- Revisions in the training system may be considered perhaps at two years intervals.
- Skill testing and certification may be done by technically competent and credible agencies that meet the criteria laid down for the purpose.
- Attempt may be made to put to test the workable mechanism on the ground before commencing work. The system should evolve over a period of time, be monitored and improved as experience is gained.
- Three aspects may receive special attention, namely:
 - Training of trainers
 - Training of women workers
 - Training of supervisors and mistris
- Contractors may be required to employ trained and trade-tested workers on the jobs. This may be written into the contract document and penalty imposed if untrained workers are employed on jobs notified to be performed by skill-certified workers and supervisors.
- The training institutions may give more weightage to basic literacy and work experience for admission to training courses.

ANNEXURE VI: Skill Development Fund – Other Countries

Singapore uses a levy on the wages of workers to upgrade worker skills through the Skills Development Fund (SDF). The SDF was established in October 1979 with the objective of encouraging employers to train and upgrade the skills of their employees. The SDF does this by offering grants as an incentive to companies to defray the cost of training their workers. These grants are financed by collections from the Skills Development Levy (SDL). Under the SDL Act, every employer, both local and foreign, is required to pay, monthly, a skills development levy for each of their employee whose remuneration in any month is Singapore Dollars 1000 or less. The rate of levy for an employee for any month is 1% of the remuneration or \$ 2.00 whichever is greater. The Fund's aggressive efforts—to raise awareness of training among firms, to support development of company training plans, and to provide assistance through industry associations—have led to a steady rise in the incidence of training, especially among smaller firms.

Other salient features of the SDF are as follows:

- a) No skills development levy is payable in respect of any employee whose remuneration is more than \$ 1000 for any month. For the purposes of the Act, "remuneration" includes wages, salaries, commissions, bonuses, allowances and other emoluments paid in cash
- b) The term "employee" includes casual, part-time and foreign workers rendering services wholly or partly in Singapore. Employers of domestic servants, chauffeurs or gardeners are also liable to pay the levy. However, private individual employers employing any of these persons wholly and exclusively for domestic purposes are not liable to pay such levy.
- c) The skills development levy should be paid to the Central Provident Fund Board. Together with the submission of the return of payroll in the prescribed form, the skills development levy for any month must be paid by every employer within 14 days after the end of that month or by such later date as agreed by the Singapore Productivity and Standards Board (PSB).
- d) Any employer who gives any false or misleading information relating to the return on the payment of the levy or who contravenes the provisions of the Act or Regulations shall be liable, if convicted, to a fine or imprisonment or both. In addition, a penalty at the rate of 10% per annum of the amount outstanding shall be imposed for late payment.

Malaysia's Human Resource Development Fund (HRDF) is an example of a flexible, demand-driven training scheme. The HRDF is generated from payroll levy, which is 1% of employee's wages. Promoted investments obtain 70%- 100% exemptions from income tax. Reinvestment programs obtain grants of up to 40% of the capital investment for production capacity. Depending on their training needs, firms can choose flexibly from among several programs: (1) approved training courses provided by registered external institutions; (2) adhoc in-plant or external training courses on a as-needed basis; and (3) annual training programs. Prior approval of training courses under the second and third programs is required from the HRD Council. However, the Council's overhead costs are kept low, and filing burden

on firms is reduced, by automatic approval of courses under first program, by using registered training institutions as collection agents of the council, and by giving firms with well developed training plans, the option of filing under the annual program. In addition, the HRDF provides firms with grants for developing training plans, organises regional courses on training need assessments, and administers a variety of subsidized programs targeting small enterprises. A preliminary analysis indicates that the scheme may have increased the incidence of training modestly.

South Korea: The huge investment in vocational and technical education is supported by Ministry of Education by subsidizing cost of practical training laboratories, workshops and vocational schools. Also there is large amount of funding from IBRD, OECD and other donor agencies. Many Trade Union Centres have education structures and programmes. These get financial support from national trade union bodies and public funds on a mutually accepted criteria.

The financing is done through four categories:

- Allocation from workers' union funds
- Funding from public revenue by State/ Local bodies or through other agencies
- Per capita payment from employers to union education fund
- International agencies and other donor agencies

United Kingdom: Very few non-formal education programmes are from public funding. Fees often cover the full cost of the courses. 13% total public expenditure is for formal and non-formal education and training programmes, but estimates of share of private resources are not available. Department of Employment and Manpower Service Commission provide special funds for training of the unemployed. There is also assistance for formal training programmes from local education authorities.

Mauritius: 1% of wage bill of employers is set apart for funding industrial and vocational training which is a training cess. All training programmes both formal and non-formal are to be approved by IVTB. For many approved training programme, reimbursement of 30% of the training cost/fee is made to the employer. Besides, employers also get tax concession for an amount equal to twice the expenditure on training, which reimburses 40% to 60% of the training cost, depending upon the income bracket in which the employer falls.

Australia: Further education is done through TAFE colleges and schools, which are run by the State Governments. Funding is from Central and State Governments.

ANNEXURE VII: Success Stories**Private initiatives in training**

During the course of the study, the group has come across technical training institutes, which have adopted a holistic approach to training including, conducting market driven courses, design of curriculum by industry, etc. Although there were many institutes, the Study Group has attempted to mention key characteristics of these institutes.

Nettur Technical Training Foundation (NTTF), Bangalore

Promoted by: NTTF Industries which is an OEM for automobiles.

- a) 12 training institutes having more than 2500 students.
- b) 100% placements in India and abroad.
- c) Market driven courses: 14 types of courses such as tool & die making, machining trades, Mechatronics, product design.
- d) World Bank recognised.
- e) 63% time allocated to practical and 37% time allocated to theory.
- f) Holistic Approach to training including shop talk, presentation and skill analysis (review plan vs. achievement), daily work planning, practical efficiency rating, machine utilisation chart, etc.
- g) ISO 9000 certified.

Murugappa Polytechnic, Chennai

Promoted by: Universal Carborundum

- a) First Polytechnic in the country to get ISO 9001 certification.
- b) Revision of curriculum and syllabi for each Diploma programme from time to time to suit the needs of the Industry.
- c) Design of curriculum and syllabi made by a series of Expert committees consisting of experts from industry and academic institution.
- d) Contemporary facilities including advanced facilities available in communication skills, Computers, CAD, Non-conventional Energy Devices, Applied Electronics, PCB making, Hardware Training, Hydraulics & Pneumatics, CNC machines, CNC Wire-cut EDM, Robotics.

Computer Education & Training Institute (CCTI), Ludhiana

Venture of self-employed computer graduates.

- a) Own part time/full time certificate/diploma courses.
- b) Focussed on hardware training (being missed out by others).
- c) First ISO 9000 training organisation in Ludhiana.
- d) Undertake 100% industry relevant training only.

NGO's under CAPART

Council For Advancement of People's Action and Rural Technology (CAPART), a registered society under the aegis of the Ministry of Rural Development was set up in September, 1986. Its main mandate is to promote and assist voluntary organisations in the implementation of projects for sustainable development in the rural areas.

CAPART has been implementing income generation programmes, which aim at providing income generating assets and self-employment opportunities to the rural poor. Basically there are following two schemes for income generation:

- a) Integrated Rural Development Programme (IRDP).
- b) Development of Women and Children in Rural Areas (DW CRA).

During the course of the study, the group has come across several organisations, which have done pioneering work in the area of skill development and training with the assistance of CAPART. These success stories are given below:

Ramakrishna Mission, Kolkata (West Bengal)

Founded: as a student's home in North Calcutta after the 1943 famine in West Bengal, it has gradually expanded its activities and launched an adult education programme as well as production cum training centre.

Successful Initiatives: The establishment of a production cum training centre at nearby Arapanch village in the eighties has helped young boys and girls to *earn while receiving training* in tailoring, weaving and making cloth and raccine bags. On an average trainees are earning about Rs. 500 a month- on the basis of the output. The Ashram keeps only 15% of the profit.

The centre has also conducted training programmes in bee-keeping and honey-processing. Its animal husbandry and poultry units have been instrumental in improving animal resources in and around Narendrapur. Many dairy units and poultry farms have come up in a 35 km radius.

BAIF

Earlier name: Bhartiya Agro Industries Foundation

Founded: 1967 at Urulikanchan, Pune (Maharashtra)

Work areas: Integrated rural development through sustainable management of degraded natural resources-land, livestock, water and vegetation through multi-disciplinary programmes.

While promoting livelihood, development programmes also address the problems of health, illiteracy, empowerment of women and environmental pollution to ensure better quality of life. BAIF's strategy is to blend research and training with development to ensure transfer of appropriate technologies for the benefit of the rural people.

BAIF is currently operating in the states of Maharashtra, Karnataka, Andhra Pradesh, Uttar Pradesh, Gujarat, Rajasthan and Madhya Pradesh. The cattle development programme of BAIF reaches over 15,000 villages. The tree-based farming system focuses on the development of marginal wastelands through watershed development, agro-forestry, horticulture and empowerment of women. Women are encouraged to contribute a small sum from their savings which in turn is used for promoting micro enterprises and meeting small cash needs. The programme is being implemented in selected village clusters in Maharashtra, Gujarat, Karnataka, Rajasthan and Uttar Pradesh.

Self employed Women's Association (SEWA), Bhopal (Madhya Pradesh)

SEWA, Bhopal commenced work in 1982, and is an association of women working in the unorganised sector. It is working in the six States of Gujarat, Madhya Pradesh, Bihar, Uttar Pradesh, Kerala, Delhi and has on date a membership of 3.18 lakh women.

The primary objective of SEWA is to sensitise women workers in the unorganised sector to be united, make them confident and independent financially. It also foresees that women are not exploited and obtain adequate money for their produce. Most of the women are home based workers and make incense sticks, papad, readymade garments, handicrafts and paper bags.

Aragamee, Orissa

Founded: in January 1987 in Orissa, as a branch of the Social work and Research Centre, Tilonia, Rajasthan.

Work Areas: It is engaged in developmental activities for the socially and economically weaker sections of rural Orissa for over a decade. In the last one decade, "Aragamee" has successfully implemented social and economic developmental schemes in the ten most underdeveloped and tribal-dominated districts covering above 1000 villages of Orissa.

With the assistance from CAPART, the organisation has also established a training centre at Mandvishi village, for broom manufacturing, primarily for tribal women in the region. Each of the 100 women undergoing training is paid Rs. 15 per day for 15 days as training allowance. As a result of training in the centre, women of nearby villages have become experts in making brooms and are able to maintain their houses. On an average, their daily income is Rs. 30 – Rs. 40.

The organisation also has done significant work in the region in the area of land conservation, water storage and new agriculture technology.

ANNEXURE VIII: List Of Datasources**Sl. No. Name of Organisation**

1. Shriram Centre for Industrial Relations & Human Resources
2. Institute of Applied Manpower & Research
3. Report of the Task Force on Employment Opportunities set up by the Planning commission
4. Confederation of Indian Industry
5. The Associated Chambers of Commerce & Industry of India
6. Federation of Indian Chambers of Commerce & Industry
7. PHD Chamber Of Commerce And Industry
8. Responses of companies to the questionnaire prepared by the NCL
9. Technical Teachers' Training Institute, Bhopal
10. PSS Central Institute of Vocational Education, Bhopal
11. National Institute of Construction Management & Research
12. Report of Study Group on "Umbrella" legislation for workers in the unorganised sector

Sl. No. List of Organisations/ Institutions that participated in the workshops for the unorganised sector

1. Nabakrushna Chaudhary Centre for Development Studies, Bhubaneswar
2. ACTION AID, Bhopal
3. Self Employed Women Association (SEWA), Bhopal
4. Technical Teachers' Training Institute, Bhopal
5. Shriram Centre for Industrial Relations & Human Resources, New Delhi
6. Akshat Health, Help & Research Society, Bhopal
7. PSS Central Institute Of Vocational Education, Bhopal
8. Sahyog, Bhopal
9. Bharatiya Agro Industries Foundation (BAIF), Bhopal
10. Madhya Pradesh Vigyan Sabha, Bhopal
11. Samarthan – Centre for Development Support, Bhopal
12. Rashtriya Gramin Vikas Nidhi, Assam
13. Regional Centre for Development Co-operation, Bhubaneswar
14. Institute for Socio-Economic Development, Bhubaneswar
15. Sahabhagi Vikas Abhiyan, Bhubaneswar
16. Vikasdhara, Bhubaneswar
17. Vasundhara, Bhubaneswar
18. Orissa Voluntary Health Association, Bhubaneswar
19. Centre for Youth & Social Development, Bhubaneswar
20. Breakthrough Appropriate Technology Transfer Network, Bhubaneswar Green Development
21. Bhartiya Mazdoor Sangh, Bhubaneswar
22. Indian National Trade Union Congress, Bhopal

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3. IAMR, *"Employment in the Informal Sector"*
4. Report of the Task Force on Employment Opportunities set up by the Planning Commission
5. *Model for Designing Competency Based Training*, Prof. PC Jain et.al.
6. PSS Central Institute of Vocational Education, *"Compendium of Occupations based modules in building construction sectors"*
7. Report of Study Group on "Umbrella" legislation for workers in the unorganised sector set up by the National Commission on Labour
8. Report of the Working Group on Skill Development and Training (for the Tenth Five Year Plan (2002 – 2007))
9. National Sample Survey Organisation, *"Employment & Unemployment Situation in India, 55th Round"*
10. World Competitiveness Report (1994)