Report and Recommendations of Sub-committee on

"Establishing Institutional Mechanism for providing access to information of Skill Inventory and Skill Maps on real-time basis"

National Skill Development Coordination Board

Planning Commission

New Delhi, May 2010

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1. Preface

The continued economic progress of India over the past decades has mainly benefited those with education and innate business/technical skills. As we embark on the mission to make the country as an economically developed nation by 2020, the fruits of economic growth must reach every citizen. This is only possible by making skills accessible to every citizen. Perhaps for the first time in recent history of the nation, we have a situation where there are more jobs and less skilled labourers available to take up those jobs. Against this background, the vision of National Skill Development Mission to train 500 million persons by 2022 is, indeed, laudable.

Training 500 million persons by year 2022 would require huge investment, thus, it is imperative to know how, where, and when informed investment decisions are to be made. Therefore, the scope of this sub committee is to create institutional mechanism for meta-data for skills and skill gaps. Since the country has not focused on ongoing studies about the labour supply and demand and the consequent skill mismatches at the national level for decades, this committee finds that task a big challenge. Luckily, the wide availability of internet based tools and the increasing access to the internet as well as the relative ease with which younger generation of Indians take to the internet, it is possible to jump start the exercise in a relatively short span of time.

The committee recommends the establishment of Sector-specific Skills Councils, Commissioning studies across every sector for consistent codification of skills (meta-data creation) and another set of studies for skill gaps assessment using the meta-data skills. Subsequently, a Skills Portal would be developed to create the e-market place for skilled labour which in turn would work with the e-match maker (re-engineered electronic employment exchanges).

The recommendations of the committee are far-reaching in character and if implemented well can be transformational in India's growth in the next two decades.

I am duty bound to express my gratitude to all the members of committee who have travelled long distances and met more than once to participate in the deliberations, contributing their share in exchange of ideas which has helped a lot in preparing this report. I am especially thankful to the Planning Commission and the officials of the DGE&T (Mr. Sharda Prasad, DGE&T and Mr. S.J. Amalan, Director AHI) and all others who have contributed directly and indirectly in preparation and finalization of the report and giving us this opportunity to play a small role in this exercise of importance in nation building.

Bangalore

May, 2010   (Prof. S. Sadgopan)

2. Abbreviations full forms

1.	CII	Confederation of India Industry
2.	ICRA/ IMACs	ICRA Management Consulting Services
3.	DGE&T	Directorate General of Employment and Training
4.	AHI	Apex-Hi-Tech Institute
5.	MOL&E	Ministry of Labour & Employment
6.	TOR	Terms of Reference
7.	NSDCB	National Skill Development Coordination Board
8.	LMIS	Labour Market Information System
9.	HRP	Human Resource planning
10.	NCVT	National Council for Vocational Training
11.	SSC	Sector Skills Council
12.	BFSI	Banking Finance Services and Insurance
13.	IT/ITES	Information Technology/ Information Technology Enabled Services
14.	J&K	Jammu and Kashmir
15.	NASSCOM	National Association of Computer Software
16.	IIHA	Indian Institute of Hotel Association
17.	E&Y	Ernst and Young
18.	USA	United States of America
19.	UK	United Kingdom
20.	NQF	National Qualification Framework
21.	BCG	Boston Consulting Group
22.	PHDCCI	Punjab, Haryana & Delhi Chamber of Commerce and Industry
23.	NCO	National Classification of Occupation
24.	ASSOCHAM	Associated Chamber of Commerce and Industry
25.	FICCI	Federation of Indian Chamber of Commerce and Industry

3.   Executive Summary

Skills and knowledge are key factors for the economic and social growth of the country. India is one of the youngest country of the world, with about 58% of population in the working age group of (15 to 59 years). As the proportion of population in the working age group of 15 to 59 years is projected to increase, about 13 million persons are to join the workforce annually. It is necessary that the workforce be adequately skilled to make best use of the "demographic dividend". The scale and scope of skill building required is outlined in the National Policy on Skill Development. The overall objective is to have 500 million skilled persons by 2022. A careful assessment of human resource and skill requirements would be a starting point in this direction.

In a globally competitive environment, it is necessary for a country to know its competitive strengths in terms of its people, skill sets, benchmark them against the best in the industry and work towards bridging these gaps in a systematic manner. The first step in this process is to measure the "as-is" status. This is where skills inventory and measuring the existing skill sets comes into picture which would be guiding efforts towards bridging the skill gaps. By creating its own unique inventory of human capabilities, a country is better equipped to compete globally.

Mismatch of skills, needs equally serious attention as absence of skills. People with high skills who are only able to find low skilled jobs are equally less productive, as they are underemployed. Better quality matches do not only lead to higher productivity but also tend to increase the worker's and employer's satisfaction. The resulting lower labour turnover reduces the loss of skills and the cost of hiring new workers.

Due to fast adoption of new technologies by industries, it is challenging for the skill development system to keep pace with new emerging areas to train the workforce as per the need of world of work. In order to meet the above challenges, it is important to identify the emerging skill areas and include the new skills in the curricula.

Various Ministries are making efforts to adopt suitable strategies and mechanisms for achieving a better matching of demand and supply of skills

in the changing environment. Revision of the course curricula of existing skill courses, introduction of training courses in new emerging areas on regular basis to keep pace with technological changes taking place in the industry is an ongoing process. However, at present, no such mechanism is in place which can identify the future skill needs of industry and suggest training programmes accordingly to meet the skilled man power requirement. Also, there is no mechanism in place which identifies the skill gaps and suggests remedial measures. Therefore, there is an urgent need for creation and maintenance of data base for skill inventory and skill map through an institutional mechanism on real time basis.

The sub-committee has examined various issues linked with creation of institutional mechanism of skill inventory and skill map on real time basis, members held discussions among themselves and with the officials of the Ministry of Labour & Employment and other stakeholders. Consultations with several professionals associated with skill development were also done.

The sub-committee has recommended setting up of sector skills councils to create sector specific inventory & meta-data and meta-data of skill gaps. The sector skills councils are also expected to develop national occupational standards, national training standards, course curricula, undertaking training of trainers and set up Sector specific academies of excellence for conducting research and prepare plan of action for the sector. The Sub-Committee also suggests modernization of employment exchanges and development of a national web portal housing data on needs of skills by the industry on real time basis, on the one hand , and supply of skills on the other, through the skill development system. As an interim measure, the sub-Committee also suggests placing Institute of Applied Manpower Research under the umbrella of Ministry of Labour & Employment or create a similar institute which can carryout sector specific survey of skill gaps in order to develop a sound Labour Market Information System.

4. Constitution of Sub-Committee its Terms of Reference (ToR) and Members of the Sub- Committee:

Eleventh Plan has envisaged a coordinated action for skill development for inclusive and faster growth and development. Recognizing the importance of skill development in the social and economic development and to guide skill development efforts in the country, Government of India has set up following institutional mechanisms:-

1. National Council on Skill Development (NCSD) chaired by Prime Minister of India,

2. National Skill Development Coordination Board (NSDCB) chaired by Dy. Chairman, Planning Commission; and

3. National Skill Development Corporation-(NSDC) a not-for- profit company under the Companies Act, 1956.

The PM's Council lays down broad policy objectives, financing and governance models and strategies relating to skill development in the country. The Board enumerates strategies to implement the decisions of the Prime Minister's National Council on Skill Development and develop appropriate operational guidelines and instructions for meeting the larger objective of meeting skill needs of the country.

One of the functions of NSDCB is assessment of skill deficits sector wise and region wise and plan action so as to bridge the gaps and move towards the establishment of a " National Skill Inventory" and another " National Database for Skill Deficiency Mapping" on National web-portal – for exchange of information between employers and employment seekers.

National Skill Development Coordination Board (NSDCB) in its first meeting constituted five Sub-Committees:-

      a. Remodeling India's apprenticeship scheme,
      b. Vision for Vocational Education and Vocational Training,
      c. Improvement in Accreditation and Certification Systems,
      d. Reorienting Curriculum on continuous basis, and
      e. Establishing institutional mechanism for providing access to information on skill inventory and skill map on real time basis.

Following are the terms of reference (ToR) for the Sub-committee on establishing institutional mechanism for providing access to information on skill inventory and skill map on real time basis.

i)   Lay down meta-data for the National Skill mapping database. Assign the creation of database to expert agencies.

ii)   Lay down the meta-data for the National Skill gap/inventory. Assign the creation of database to expert agencies.

iii) Consider the ways and means by which the said database may be placed in the public domain. Initialize the process of data up-dation through Employment Exchanges

iv)   To be set up as a multi-disciplinary committee.

A copy of the office order constituting the Sub-committee, nominating members and the terms of reference of the sub-committee are enclosed as **Annex-I** of this report.

The list of the members of the Sub-committee is placed at **Annex-II.**

5. **Objective of the Committee:**

Based on terms of reference, following objectives have been identified for the committee:

- Conduct analysis of information of skill inventory and skill map on real time basis –in the light of national and international experiences.
- Market research & skill gap analysis.
- Taking stock of skill available.
- Defining Skill standards and to facilitate nationally standardized and acceptable, international comparability of qualifications,
- Mapping of available skills & competencies.
- Linking of skills with job profiles.
- Preparation of database of skill availability, skill required and skill deficit and link it to public domain.
- Analysis and dissemination of information for all the stake holders.
- Up gradation of employment exchanges for the accessibility of information to public.
- Maintenance of data base on real time basis.
- Identification and selection of expert agencies for specific task.

All the above issues were discussed in detail in the three meetings of the Sub-committee which were held on

    i.   28th May 2009 in Bangalore
   ii.   25th August 2009 in New Delhi
  iii.   26th Feb 2010 in New Delhi

Minutes of the meetings are placed as **Annex III, IV & V** respectively.

6.   Background

The National Skill Development Mission has set an ambitious target of equipping 500 million persons with employable skills by the year 2022. Several studies have talked about the demographic dividend that India would enjoy for the next 5 decades. This combined with the labour shortage that is likely to surface in most countries including China and the developed nations (USA, Western Europe, and Japan), provides an unusual opportunity for India to supply skilled workforce to the whole world.

6.1. National Policy on Skill Development: Recommendation on skill mapping

As Indian industry grows and competes internationally, it is faced with the realization that the availability of requisite skills – in terms of nature, quality and numbers - is beginning to emerge as a major constraint. The National Policy for Skill Development in Chapter-4 under heading "Labour Market Information Systems and HR Planning Mechanisms", deals with the issue of skill mismatch and skill mapping. Following guide lines have been approved for action plan:-

a) Improving the relevance and reducing skill mismatch requires establishment of Labour Market Information System (LMIS) and Human Resource Planning (HRP) for the realistic assessment of economic trends and labour market needs.
b) Sector specific LMIS will be established at national and state levels, and area specific ones at local levels with the help of Sector Skill Councils (under National Skill Development Corporation) to undertake labour market analysis.
c) Human Resource Planning (HRP) exercises will be undertaken to gauge the anticipated supply and demand of skilled workers by different skill levels, economic sectors, and geographical areas, over different periods.
d) The information so generated by the LMIS and HRP exercises will be collated and disseminated widely to government, employers, training providers, trainees, and prospective trainees at national, state and local levels, to enable them to take appropriate decisions.

e) NCVT will be responsible for dissemination of information at the national level with inputs from SSCs and State Governments.

f) Employment Exchanges will be strengthened and upgraded under the National Employment Service to provide counseling, guidance and placement services to the employment seekers. They will also channel the candidates into jobs, apprenticeship and training. Efforts will be made to expand formal employment.

6.2 Knowledge and skill must be viewed as two eyes and given equal Importance

Unfortunately, skill development and higher education have remained unconnected almost for nearly six decades causing considerable harm to the development of significant numbers of high quality skilled professionals. Associating skill development with labour has also the perceptional disadvantage as if the skills have to do some things with labours only while knowledge and skills are necessary for any young person who is looking for a career. In many countries, Germany for example, Education, Training and Science and Technology are part of the same Ministry. Similarly, Australia has got Department of Education, Employment and Work Relation. We have also not been able to provide smooth transition from school education to vocational, technical and higher education.

Open Universities in many countries serve the purpose of skill development very well. Unfortunately most of the open Universities in India are run as "poor cousins" of regular Universities with a not so splendid track record of quality. In addition, they dish out more of rote learning materials.

6.3. Training Target by the year 2022:

It is no exaggeration to state that today's growth in the high-growth sectors namely, BFSI, Retail, Construction, and hospitality, etc. are significantly impacted negatively due to the lack of skilled man power, than the lack of funding, lack of access to market or even due to restrictive government or trade policies. Hence, the skill development mission is truly a "mission mode" project to accomplish the ambitious goal of creating 500 million skilled professionals by 2022.

The current capacity of skill development in the country is about 3.1 million. There are 16 Ministries/Departments engaged in skill development activities **(Annex VI)**. India has set a target of skilling 500 million people by 2022 to meet the challengers of India @75. Present number of training institutions, their annual capacity of training, and projected number of trained persons by 2022 for different Ministries/ Departments / Organizations are given at **Annex-VII**. The targets are based on projected employment potential in the concerned sectors. This may, however, be reviewed from time to time according to growth of sectors and their actual workforce requirement. There are few Ministries, whose sectors have tremendous employment potential like Ministry of Finance. They have never been in skill development but they should take a lead role in skill development for their own sector.

National Skill Development Coordination Board (NSDCB) in its first meeting constituted five Sub-Committees:-

      a. Remodeling India's apprenticeship scheme,
      b. Vision for Vocational Education and Vocational Training,
      c. Improvement in Accreditation and Certification Systems,
      d. Reorienting Curriculum on continuous basis, and
      e. Establishing institutional mechanism for providing access to information of skill inventory and skill map on real time basis.

This sub-committee is charged with the responsibility of establishing institutional mechanism for providing access to information of skill inventory and skill map on real time basis.

7. Existing Scenario

7.1 Demand supply gap –studies made.

According to 2007-08 Economic Survey, 64.8% of India's population would be in the working age of 15-64 years in 2026 up from 62.9% in 2006. Other projections also indicate emergence of young India with 800 million in the productive age group by 2015 compared to 600 million in China.

According to a study conducted by Confederation of Indian Industry and Boston Consulting Group (CII & BCG) India has a large population base of 1.14 billion with demographic shift in favor of working age group (15-59 years) while the overall population is projected to grow at 1.4% over the next five years the working age is expected to grow at 2.15%. If the present trend continues, 109 million persons will attain working age during the period of 2007-2012. The net addition to workforce is, therefore, expected to grow to 89 million of which around 13 million are likely to be graduates/post graduates and about 57 million are likely to be school drop outs or illiterates. A significant share of incremental demand is likely to be for skilled labour – graduates and vocationally trained people are expected to account for 23% of incremental demand by 2012. The study further estimates that India is likely to increase deficit of 5.25 million employable graduates and vocationally trained workforce by 2012.

Another study by Boston Consulting Group for PHD Chamber of Commerce & Industry has estimated that by 2020 the world will have shortage of 56 million working people but India will have a surplus of 47 million. In order to reap the benefits of demographic dividend , therefore, India will have to equip this manpower with relevant skills to meet the requirement of skill talent across geographies.

CII has also conducted study in select sectors of economy in the following States:-

Punjab – Textiles, Auto/Auto Components, Light Engineering, Food Processing, Real Estate and Construction, Retail and location based entertainment.

Tamil Nadu – Textiles, construction, auto/auto components, Light Engineering, IT/ITES, Leather.

Andhra Pradesh – Construction, Textiles, Tourism, Healthcare, Engineering, IT/ITES, Pharma, Biotech, Paper, Minerals.

J&K – Handicrafts, Hospitality, Agro-processing, Construction, ITES, Repair Servicing.

On the basis of above studies CII has projected requirement of skilled workers at different levels by 2015. The details are placed at **Annex-VIII.**

7.2. CII has further projected incremental human resource requirement by year 2022 which given at **Annex-IX.**

7.3. Outcomes of studies conducted by ICRA, Management Consulting Services for National Skill Development Corporation.

National Skill Development Corporation mandated ICRA Management Consulting Services Limited (IMaCS) to undertake a study of mapping of human resource skill gaps in key sectors in India by year year 2022.The Terms of Reference for this study were:

- Normalise existing data pertaining to various skill gaps; and
- Mapping of human resource and skills covering
- a) Analysis of macro-environment and competitiveness of key sectors;
- b) Forecasting of human resource requirement in key sectors;
- c) Demand-supply gap of human resource in key sectors;
- d) Identify reasons for supply bottleneck in key sectors;
- e) Identify likely requirement/potential demand for skills in key sectors by 2022; and
- f) Skill gap analysis – current vis-à-vis future.

Findings of study are summarized in the table and is placed at **Annex X.**

Considering the studies conducted by CII & ICRA on skill requirements, though the years of manpower requirement projections are different, the details of manpower projections for Retail & Construction sectors require more accurate projection. In fact, both the CII & TCRA may have to furnish

yearly details to arrive at some realistic assessment. Nevertheless, they have made appreciable efforts in bringing out skill gaps in various sectors.

7.4 Other studies

During last decade, the high growth of the Indian economy in the sectors, such as namely,

- Retail
- BFSI
- Transportation
- Hospitality Healthcare
- IT / ITES
- Textiles
- Diamond Cutting
- Real Estate

has led to a huge demand for skilled man power across the length and breadth of the country. Several studies by industry associations such as CII, NASCOM, IHHA and consulting bodies such as ICRA, KPMG and E&Y have brought out in fair detail the current skill gaps. However, many of the studies have been done with a limited purpose of highlighting the need for skill development, particularly in specific areas (one of the high growth areas that were mentioned earlier). Unfortunately, while such data is very useful to get insight into labour market, it is not usable towards the task of the sub-committee.

7.5 Computerization of Employment Exchanges and development of a National Web Portal

7.5.1. Present status:

Employment Exchanges, being the first contact point for the job seekers play a vital role in providing employment assistance. These exchanges not only register the candidates for sponsoring them against the notified vacancies but also provide vocational guidance and career counseling for improving their employability. Though some of the Employment Exchanges are computerized, the majority of them work manually resulting in limitation in dissemination of information both to the employers as well as to the job seekers. These constraints can be overcome by introduction of an e-Governance tool which will provide a solution for speedy and easy access to employment related services/information to job seekers as well as employers. The experience has shown that most of the States/UTs are not in a position to undertake the computerization of employment exchanges at their levels, mainly due to non-availability of adequate funds. Some of the States had undertaken the process of computerization but the system developed by them suits only their specific purpose. In order to develop a uniform standard across the country and provide easy accessibility to the job seekers, their inter connectivity is the first and foremost requirement. In this background, the computerization of employment exchanges has been identified as one of the Mission Mode Projects under the National e-Governance Plan of Government of India. Apart from connectivity of all the Employment Exchanges, a national web portal is envisaged to be developed with common software programme for uniform adoption by all Employment Exchanges. This web portal will be store house of information on skilled persons required by industry and availability of skilled work force through networking of Industrial Training Institutes/Centres.

7.5.2. NATIONAL CLASSIFICATION OF OCCUPATIONS

Indian National Classification of Occupation presents the average picture of occupations available in Indian economy. The occupations in NCO are classified, codified and described in a systematic manner for the benefit of users for various purposes. The first effort in the direction of preparing an occupational classification system namely "Guide to Occupational Classification" was brought out in 1946. The details about National Classification of Occupations are placed at **Annex-XI.**

In many countries, occupational standards are reference point for planning skill development training programmes and other related activities. In India, NCO codes have not attained that position. It is, therefore, essential to strengthen NCO code, which truly represent labour market requirements. Since labour market requirements are fluctuating, there should be institutional mechanism to update NCO on regular basis.

8. Challenges for the sub-committee

This committee views the task of skill development in India towards employable industry specific skills and not merely life skills. The overwhelming size and scope of the exercise of meta-data creation which needs intense studies that are unavailable in the Indian context. The USA, UK and Australian experiences are not easily replicable in India. The Indian higher education system serving a very small percent of adult population and its divorce from skill development is another major challenge. The lack of job opportunities for skilled labour and the lack of mobility across the country in the past is another reason why skill development did not receive its due attention.

Unfortunately due to the continuous neglect of skill development in India, there is no tradition of data collection, reporting, and research studies concerning labour across many sectors of the economy. Although there is a well established statistics department within the government the emphasis on labour statistics that too at sufficiently disaggregated, at various skill levels was very low. This is partly due to a very large number of small and medium enterprises not wanting to report such disaggregated data due to the fear of labour department enforcing labour laws on them. Thus, in absence of sufficient data, the current set up in the country is not very conducive for skill development.

> first, it is very fragmented with several ministries looking after this aspect without due focus that the skill development needs. For example in addition to DGET, 16 other ministries (list at **Annex-VI)** also impart vocational training as per their requirements.
> second, the efforts are sub-critical. The Vocational Training under DGET talks of large numbers, for example 1.1 million students registered with 8039 ITIs/ITCs as on 1/4/2010 (2133 of government and of 5906 private ownership). Considering the size of the country, it is relatively small. The existing strategy leads to sub-critical investment across a large number of institutions.
> third, skilled labour except in niche segments lacks prestige and it is NOT the preferred choice for most youngsters.

It is time that the entire skill development exercise

- is viewed afresh
- given significant policy push,
- provide for enhanced investment, and
- strategically repositioned

so that the country can justly boast of skilled man power of the highest level and competency.

Just as the country needs highly competent scientists, researchers, bureaucrats, administrators and managers, the country also needs skilled man power in all sectors of the economy.

9. Global experiences

USA, UK, Germany, Japan, New Zealand, and Australia are the countries that have a well developed skill development program running successfully for several decades.

The department of labour statistics of **USA** has been producing reports consistently and regularly about the demand and supply of labour across several industry segments with a consistent classification scheme for different skill levels. In fact, even the President of USA gets a weekly review of the labour situation across the country on a regular basis. USA also has a tradition of funding several research studies, typically in University departments that bring out the emerging patterns in labour supply and demand.

Australia is another country with well developed vocational training system. The government of Australia has built a formidable training infrastructure for skill development for Australian citizens in several diverse skills.

UK has a long tradition of labour studies. In the recent years, UK has been spearheading several initiatives to prepare the citizens of UK to be well equipped in all respects including life skills. For example, UK government provides extensive help to its citizens in equipping several aspects of life skills such as reading comprehension, listening comprehension and writing comprehension.

In **UK** Sector Skills Councils (SSCs) are state-sponsored, employer-led organizations that cover specific economic sectors in the United Kingdom. They have four key goals:

- to reduce skill gaps and shortages
- to improve productivity
- to boost the skills of their sectoral workforce
- Ensuring authoritative labour market information for their sectors;

Developing national occupational standards and ensuring that qualifications meet employer needs.The details of the role of Sector Skills Council in UK for bridging the gap between Skills supply and skill map are given in **Annex-XII.**

10. Possible Action Plan

Given the paucity of data and the lack of any institutional mechanism <u>the first and foremost need is for a set of reports commissioned to elicit the skill sets for each of the major industry segments</u>. As mentioned earlier many of the reports from industry associations like CII or Consulting bodies like KPMG are not that usable at the micro level. The recent studies on 23 industry segments carried out by ICRA on behalf of the National Skill Development Corporation seems to be a good template to use.

While the results of ICRA type organizations would be very useful it is important at this stage to do extensive stake holder consultation particularly, with industry associations relevant to a particular industry segment. A possible format could be to have a series of workshops / presentations for each of the industry segments where the results of the study could be discussed at length with the stake holders. This would lead to industry specific skills inventory that can form the basis of creating sector specific meta-data. Once all the sector specific studies are completed and extensive stake holder consultations are concluded the sector specific skills inventory can be created. A task force consisting of experts, senior officials from ministry, the consultants and representatives of industry associations together can form the common meta-data and sector specific meta-data.

The skills meta-data would form the place holder on to which the skill gap data disaggregated into space (geographic region) and time (next few years) can be mapped through another set of studies that can collect data about the actual skill gap against the skill meta-data. Once those specific skill gaps are identified, the meta-data of skill gap can be decided.

The size and scope of the data being very large, computational tools to support such data collection and institutional mechanism for quality control of the data is necessary. A portal that is available on a 24/7 basis with due authorization control can be designed to facilitate this large scale data collection exercise. The actual ownership of the data has to rest with the government while large industry houses and industry houses facilitated by the experts drawn from consultants can help in organizing the data. Help from IT experts would be needed for ensuring the necessary security, access, and performance issues. Expert help would also be needed for validation of the data, archival of the data and the visual design of access screens. Technology issues including hosting, access, including access in local languages and for those who are physically challenged must be

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addressed too. Since data of this nature cannot be monetized from the end users and advertisement based revenue is not feasible, subsidizing the cost of such infrastructure as well as charging the potential employer are issues that a business model must address. Sustainability of the portal is another issue that must be addressed.

Employment exchanges are match making organizations between the employer and the employee. So far in India employment exchanges are serving the needs of government departments only. With dramatic increase in job creation by private enterprises it is time that employment exchanges take on the larger responsibility catering to private sector as well. Through another sub-committee of the skill development mission employment exchanges are getting re-engineered into e-employment exchanges. The portal that captures the skills and the skill gaps can be dovetailed into the e-employment exchanges so that one can go from match making to market making. Matrices for the success of the portal along with ongoing research studies to analyze the data must also be planned.

The way forward is to:

- Identify institution for conducting studies for skill inventory
- Request for proposal for the studies for skill inventory
- Commissioning the studies for skill inventory
- Stakeholder consultation for skill inventory
- Creating the meta-data for skill inventory
- Request for proposal for skill gaps inventory using the meta-data for skill inventory
- Commissioning the studies for skill gap inventory
- Stake holder consultation for skill gap inventory
- Creating the meta-data for skill gap inventory

11. Recommendations

Recommendation 1: Setting up of Sector Skills Councils (SSCs)

- Set up Sector Skills Councils (SSCs) for all the sectors of economy and define their roles and responsibilities
- SSCs to carry out studies at macro & micro level to identify, quantify and stratify the skills according to labour market requirements
- SSCs to develop national occupational standards, national training standards, course curricula and undertake training of trainers
- To set up sector specific academies of excellence for conducting research and prepare plans of action for the sector.

Recommendation 2: Creation of meta-data of skill gaps

- SSCs to carry out sector specific studies for skill gaps - area wise i.e. geographic skill gaps, and time-series wise i.e. projected skill gaps for the next 5 years
- SSCs to create sector specific skills inventory & meta-data and meta-data of skill gaps
- SSCs to make provision for constant monitoring and updating of the data.

Recommendation 3: Creation of a dynamic LMIS

- Establish a new institute for creating and maintaining dynamic Labour Market Information System
- As an interim measure, Institute of Applied Manpower Research (IAMR) to be placed under Ministry of Labour & Employment to carry out survey of skill gaps for all sectors of economy area wise i.e. geographic skill gaps, and time-series wise i.e. projected skill gaps for the next 5 years to develop a sound Labour Market Information System. It is being recommended as the domain knowledge and expertise rests with Ministry of Labour & Employment. It will also be major user of data.

Recommendation 4: Establishment of National Web Portal under Employment Exchange – Mission Mode Project

- Modernize employment exchanges and develop a national web portal housing data on skill needs of the industry and supply of skills on real time basis
- Ministry of Labour & Employment to design such a skills portal that provides free access to all interested citizens and to plan institutional mechanism for highly scalable and secure portal
- Ministry of Labour & Employment to identify mechanism for ownership and running of this portal.

No. Q-19019/2/08-LEM/LP
Government of India
Planning Commission

Yojana Bhawan, New Delhi
Dated the November, 2008

OFFICE ORDER

Sub: **Constitution of Sub-Committee on Establishing Institutional Mechanism for providing access to information of skill inventory and skill maps on real time basis.**

In pursuance of the decision taken in first meeting of the National Skill Development Coordination Board, held on 10th September, 2008, it has been decided to constitute a sub-committee for examining issues relating to establishing institutional mechanism for providing access to information of skill inventory and skill maps on real time basis. The sub-committee shall comprise of the following:

1.	Shri S. Sadagopan, Director, IIIT, Bangalore	Chairman
2.	Shri Sharda Prasad, DG, Directorate General of Employment & Training, Ministry of Labour & Employment, Government of India, New Delhi.	Member Secretary
3.	Shri K. K. Mittal, Commissioner & Secretary (Labour), Government of Assam.	Member
4.	Shri C.V. Shome, Director, Employment & Training, Government of Gujarat.	Member
5.	Shri S.J. Amalan, Director, or his Representative, Apex Hi Tech Institute, Bangalore.	Member
6.	Mr. Aric Jacob, Director, or his Representative, Bangalore Hotel Academy, Bangalore.	Member
7.	Dr, R.C.M. Reddy, Managing Director, or his Representative, IL & FS, New Delhi.	Member
8.	Chairperson or his Representative, Film & Television Producers Guild of India Ltd, Mumbai.	Member
9.	Executive Director or his Representative, Gem & Jewellery Export Promotion Council, Mumbai.	Member

10.	Ms. Sangeeta Reddy, Executive Director (Operations) or her Representative, Apollo Hospital, New Delhi.	Member
11.	Shri J.S. Chopra, President, or his Representative, Automotive Component Manufacturers Association (ACMA), New Delhi.	Member
12.	Chairman or his Representative, FICCI Skill Development Forum, New Delhi.	Member

The Chairman of the Sub-Committee may co-opt any other expert in the field to facilitate deliberations of the sub-committee.

2.   Terms of Reference for the sub-committee will be the following:-

i.   Lay down the meta-data for the National Skill mapping database. Assign the creation of database to expert agencies.

ii.   Lay down the meta-data for the National Skill gap / inventory. Assign the creation of the inventory to expert agencies.

iii.   Consider the ways and means by which the said database may be placed in the public domain. Initialize the process of data updation through Employment Exchanges.

iv.   To be set up as a Multi-disciplinary Committee.

3.   The admissibility of TA/DA in respect of members representing Central or State Government Ministries/Departments for attending the meetings of the sub-committee shall be governed by the respective service rules applicable in their case and borne by the concerned Ministry/Department to which they belong.

4.   The admissibility of TA/DA in respect of non-government members of the sub-committee shall be governed by the provisions of SR 190 (a), as per the entitlement of Grade-I officers of the Government. The Expenditure on this account shall be debited to the budget grant of the Planning Commission for 2008-09 under **"MH2203-00.800-18-18.00.11-DomesticTravel Expenses"**.

5.   Secretarial assistance to the Coordination Board shall be provided by the Directorate General of Employment & Training, Ministry of Labour & Employment, Government of India, Shram Shakti Bhawan, New Delhi.

6. Sub-committee shall submit its report to the Government within three months from the date of issue of this order.

Sd/-

(S. Mukherjee)

Deputy Secretary to the Government of India

To

I Chairman & Members of the sub-committee.

ii Secretary, Ministry of Labour & Employment, Government of India .

iii. Chief Secretary, Government of Assam.

iv. Chief Secretary, Government of Gujarat.

v. AS &FA, Planning Commission.

vi. Shri S.J. Amajan, Director, Apex Hi Tech Institute, FTI Campus, Tumkar Road, Bangalore-56022.

vii. Dr. R.C.M. Reddy, Managing Director, IL & FS, Niryaat Bhawan, Rao Tula Marg, New Delhi-110047 (Fax No. 011-46002255)

viii. Chairperson, The Film & Television Producers Guild of India Ltd., G-1, Morya House, Veera Indl. Estate, Off Oshiwara Link Road, Andheri (W), Mumbai – 400 053 (Fax no. 022- 5691 0661).

ix. Shri Aric Jacob, Director, Bangalore Hotel Academy, 7, 4th Main, Tavarekere Main Road, Bangalore, 560029.

x. Executive Director, Gem & Jewellery Export Promotion Council, 5th Floor, Diamond Plaza, 391-A, Dr. Dadasaheb Bhadkamkar Marg, Mumbai – 400 004 (Fax no. 022-23808752/23804958).

xi. Ms. Sangeeta Reddy, Executive Director (Operations), Apollo Hospital, New Delhi (Fax no. 011-26823629).

xii. Mr. J.S. Chopra, President, ACMA, 6th Floor, Capital Court, Olof Palme Marg, Munirka, New Delhi-110 067 (Fax no. 011-26160317).

xiii. Chairman, FICCI Skill Development Forum, Federation House, Tansen Marg, New Delhi-110001 (Fax no. 011-23327014).

Copy to :

i. PS to Deputy Chairman, Planning Commission.

ii. PS to Member (LEM), Planning Commission.

iii. PPS to Secretary, Planning Commission.

iv. PS to Pr. Adviser (LEM), Planning Commission.

The list of the members of the Sub-committee

1. Sh. S. Sadagopan,
   Director, IIIT, Bangalore
2. Sh. Sharda Prasad,
   Directorate General Employment &
   Training,
   Ministry of Labour & Employment,
   Govt. of India,.
3. Sh. K.K. Mittal,
   Commissioner & Secretary (Labour),
   Labour & Employment Department,
   Assam Secretariat
   Dispur ,Guwahati, Assam.781006
4. Sh. C.V.Som,
   Director, Employment & Training
   Block No.1,III Floor
   Dr. Jivraj Metha Bhavan
   Gandhi Nagar,Govt. of Gujarat 382110.
5. Sh. S. J. Amalan,
   Director,
   Apex Hi Tech Institute, FTI
   Campus,Tumkur Road,Bangalore.
6. Shri Aric Jacob,
   Director,
   Bangalore Hotel Academy
   7,4th Main Tavarekere Main Road,
   Bangalore-560029.
7. Dr. R.C.M. Reddy,
   Managing Director,
   IL & FS, Niryat Bhawan ,
   Rao Tula Marg , New Delhi-110047
8. Chairperson,
   The Film & Television Producers Guild
   of India Ltd.
   G-1,Morya House, Veera Indl. Estate,
   Off Oshiwara Link Road, Andheri (W),
   Mumbai-400 053 (fax No. 022-5691
   0661) Mumbai.
9. Executive Director,
   Gem and Jewellary Export Promotion
   Council,
   5th Floor, Diamond Plaza ,391-ADr.
   Dadasaheb Bhadkamkar
   Marg,Mumbai-400004
10. Ms. Sangeeta Reddy
    Executive Director(Operations), Apollo
    Hospital,
    New Delhi.(fax No. 011-26823629).

11.   Shri. J.S. Chopra,
President, ACMA,6th Floor, Capital Court,
Olof Palme Marg, Munirka, New Delhi-110067(Fax No.011-26160317).

12.   Chairman,
FICCI Skill Development Forum,
Federation House, Tansen Marg,
New Delhi-11001(FaxNo.011-23327014).

FIRST MEETING OF THE SUB-COMMITTEE OF NATIONAL SKILL DEVELOPMENT COORDINATION BOARD ON ESTABLISING INSTITUTIONAL MECHANISM FOR PROVIDING ACCESS TO INFORMATION OF SKILL INVENTORY AND SKILL MAP ON REAL TIME BASIS

VENUE: HOTEL CHANCERY PAVILLION   DATE: 28TH MAY 2009 AT 12 PM

The following members were present in the meeting:

1. Prof S Sadagopan, Director, IIIT
2. Shri. KK Mittal, IAS, Commissioner & Secretary [Labour]
3. Shri. H Somasundaram, DDG, DGET
4. Shri. SJ Amalan, Director, AHI
5. Shri. Eric Jacob, Director, Bangalore Hotel Academy
6. Shri. G Somasundaram, ILFS, Bangalore [Representative]
7. Ms. Preeti Chandrasekhar, ADT, ACMA, Bangalore [Representative]
8. Shri. B Purushothama, Hon. secretary, Textile Association
9. Shri. RN Bandyopadhaya, JDT, DGET
10. Shri. Sushil Kumar, ADT, DGET
11. Shri. L Nagaraja Murthy, Ex-Director, Voc. Education, DET
12. Ms. Meera Venkat, Consultant
13. Shri. Mahendiran A, JDT, AHI
14. Shri. R Kaithamalai, JDT, AHI

Agenda/Objective of the Committee:

From the given ToR for the committee, following objectives have been identified for the committee.

- Conduct analysis of information of skill inventory and skill map on real time basis –in the light of national and international experiences.
- Market research & skill gap analysis.
- Taking stock of skill available .
- Defining Skill standards and to facilitate nationally standardised and acceptable, international comparability of qualifications,
- Mapping of available skills & competencies.
- Linking of skills with job profiles.

- Preparation of database of skill availability, skill required and skill deficit and link it to public domain.
- Analysis and dissemination of information for all the stake holders.
- Up gradation of Employment exchanges for the accessibility of information to public .
- Maintenance of data base on real time basis.
- Identification and selection of expert agencies for specific task.

Prof S Sadagopan, Chairman, Director, IIIT-Bangalore welcomed all the members for First Meeting of the Sub-committee of NSDCB. He said that IITs and ITIs are to be seen in the same light as skill is as important as knowledge, and we do need both the ends. Industry support will be needed as technologies keep rapidly changing. He said that PM is very much concerned about the Skill Development in the country and has taken several steps to build and recognize skill. Organized and unorganized sectors need to be addressed as both sectors operate only with skills. And large number of skilled personnel are in the unorganized sector and they need to be certified, re-trained, assessed and certified again. He set the tone for the proceedings and emphasized that the sub committee should suggest ways in which action plan should be drawn to make model Employment exchanges which would become resource centres for skill mapping and data updating. He also said that for every skill management we should make use of industry association in the form of institutional mechanism, and update them on a regular basis.

Shri KK Mittal, IAS, Commissioner and Secretary talked of the mis-match between government and industry and Demand /Supply. He also emphasized the need for working within the framework of national classification of occupation.

Mr. Somasundaram, DDG, DGET felt that Vocational training policy of the government of India could be a guiding force in the deliberations of the committee.

Ms. Preeti, ACMA pointed out the importance of creating credible and well-accepted curriculum and contents and prospective modules that can be taken up in the automobile and auto component area; Chairman Prof S Sadagopan appreciated the need for credibility and assured the members that Government and perhaps Government alone is well equipped to ensure this much needed credibility

Shri SJ Amalan, Director, AHI said that various departments and ministries involved in skill building have shown keen interest in being networked through the Modular Employable Skills(MES) programme of the Government of India, and the NCVT certification.

Shri L Narayana Murthy, expressed his happiness about the fact that most of the ITI s are having funds, and said that infrastructure, curriculum and trainers need to be improved.

Ms. Meera Venkat, Consultant, said that through video conferencing candidates can be selected for employment. This will speed up the process.

Mr. Eric Jacob, Member, talked about the hospitality and convinced the committee that MES is appreciated very much by the trainers based on his personal experience.

Shri. Somasundaram from ILF&S mentioned about the lack of quality trainers and stressed the need for widely accepted certification.

Chairman Prof Sadagopan briefed the objective of the committee and emphasized the key elements of the TOR (Terms of Reference) namely, Upgrading the Employment exchanges, Preparation of data on an on-going basis in English and Indian languages as well as Compilation, registration, job perception.

The members deliberated and the following decisions were taken;

1. **Objective: Conduct analysis of information of skill inventory and skill map on real time basis in the light of national and international experiences**

   Decision taken: For analysis of skill inventory and skill map information, skills will be identified in each module/sector. After the identification of skill sets is done, skill inventory and skill mapping will be carried out. The MES effort in the Textile/Garment Sector can be taken as a template. Based on the feedback of the participants it was agreed to focus initially on the following sectors Agriculture and Food Processing, Construction, Retail, Aviation, Telecom, Hospitality, Automotive & Auto components.

2. **Objective: Market research & skill gap analysis**

   Decision taken: Different teams of experts will be formed to carry out the market survey and these groups will analyse the existing skill gap.

3. **Objective: Taking stock of skills available**

   Decision taken: It is felt that the MES format is very ideal, and after the creation of skill matrix in the various sectors initially which are mentioned above the skills inventory can be built up progressively.

4. **Defining skill standards and to facilitate nationally standardized and acceptable, international comparability of qualifications**

   Decision taken: Norms for skill standards will be set and benchmarked against internationally acceptable standards after the skill matrix is evolved.

5. **Mapping of available skills and competencies**

   Decision taken: The available skills will be mapped on the basis of format already available under MES scheme and the same will be followed.

6. **Objective: Linking of skills with job profiles**

Decision taken: On a pilot basis, modules have been developed under Garments & Textiles sector for linking of skills with job profiles. Similar work can be carried out in six to ten other popular sectors for linking of skills to jobs as mentioned earlier.

7. **Preparation of database of skill availability, skill required and skill deficit and link it to public domain**

Decision taken: Skill sets in each module will be identified in the first place and a database will be prepared on skill availability, skill required and skill deficit. Then this database will be put in public domain through an IT enabled effort.

8. **Analysis and dissemination of information for all the stake holders**

Decision taken: Once the data base of skill inventory is ready, the same will be analysed and shared among all the stake holders for effective implementation and feedback/suggestions for improvement. Further, curriculum, availability of jobs and skilled manpower will be made available to all the stake holders periodically.

9. **Objective: Upgradation of employment exchanges for the accessibility of information to public**

Decision taken: On a pilot basis, within 72 hours, one employment exchange in rural area and one in urban area will be identified in Karnataka for making it into a model employment exchange. Subsequently, two employment exchanges one in Rural and one in Urban area will be selected in each of the 33 States & Union territories in the country for making it into a model employment exchange.

10. **Maintenance of data base on real time analysis**

Decision taken: Once the availability of skill sets in each module is identified, the a web-based real time data base will be developed for the benefit of job seekers as well as those looking for the skilled personnel.

11. **Objective: Identification and selection of expert agencies for specific tasks**

Decision taken: 3 groups of experts were identified in the sectors of Construction, Automobile, Agriculture, Textiles, Hospitality and Retail. These experts will identify the skill stock available and will carry out skill mapping in their respective sectors.

Shri SJ Amalan gave the vote of thanks to the Chair and he also thanked all the members of sub-committee for sparing their valuable time in attending the session and making it a lively one.

Minutes of second meeting of sub-committee of National Skill Development Coordination Board on "Establishing Institutional Mechanism for Providing Access to Information on Skill Inventory and Skill Map on Real Time Basis"

The second meeting of sub-committee of National Skill Development Coordination Board on "Establishing Institutional Mechanism for Providing Access to Information on Skill Inventory and Skill Map on Real Time Basis" was held on 25th August, 2009 at C-wing of Shram Shakti Bhavan, New Delhi. Prof. S. Sadogopan, Director, IIIT, the Chairman of the Committee could not attend the meeting due to his pre-occupation so the meeting was conducted under the chairmanship of Sh. Sharda Prasad, Director General Employment & Training and Member Secretary of the above Sub-Committee. Meeting was also partly chaired by Shri. K.K. Mittal Commissioner & Secretary (Labour), Labour & Employment Department, Assam .

Following members were present in the meeting:

1. Sh.Sharda Prasad, DG/JS   -   Chamber
2. Sh. K.K. Mittal, Commissioner & Secretary (Labour) ,
    Labour & Employment Department, Assam
3. Sh.R.K.Chugh , Dy Director General of Training , DGE&T
4. Sh. S. J. Amalan, Director, Apex Hi Tech Institute, Bangalore
5. Sh.Ravi Mythili, IL&FS Clusters
6. Sh.Eric & Jacob, Director, Bangalore Hotel Academy
7. Sh.Bijon Nag, Chairman,ACMA
8. Ms.Meenakshi Narayan, ACMA
9. Sh.L. Nagarajamurthy, Former Director of vocational Education, Karnataka
10. Sh. R. N. Bandyopadhyaya, JDT
11. Sh. B.L.Meena, JDX
12. Ms.Anita Srivastava, DDT

Initiating the discussion, DG/JS informed the members about the five sub-committees set by National Skill Development Coordination Board with different Terms of Reference (TOR). He also informed that all the sub-committees are required to submit their reports to the Board in the stipulated time period. The Planning Commission will give a presentation to the PMO based on the recommendation of their sub-committee. He then briefly explained the TOR for the sub-committee on Skill Inventory and Skill Map. Expressing his views on the issue ,he said that there is a urgent need to connect the right skills to the right job. He emphasized the need for creating system and structures for maintaining the data base on skill inventory & Skill need and thus, making the system to work on real time basis instead of doing the exercise for one time basis. He informed the members that National Policy on Skill Development also envisages for such system and we have to think to operationalise the process.   He further informed that in the policy , National Skill Development Corporation has been entrusted to set up Sector Skills Councils with following functions

a) Identification of skill development needs including preparing a catalogue of types of skills, range and depth of skills to facilitate individuals to choose from them.
b) Determining skills/competency standards and qualifications.
c) Establishing of well structured sector specific Labour Market Information System (LMIS) to assist planning and delivery of training.

He also informed members that there are 969 Employment Exchanges in Country collecting information of skill requirement by the industry prospective, employment seekers are getting themselves registered in these employment exchanges and in a way they are connecting them to the Industry. Presently data collection is done manually therefore, this has become a slow process and therefore, a project has been formulated to modernize Employment Exchanges enabling institutions such as ITIs and ITCs. There is also one sub-committee of NCVT for norms and curricula which also recommend courses for introduction in ITIs or ITCs as per need of industry. He then requested members to give their views on TOR.

Sh. Bijon Nag, ACME suggested that the skills are required to be defined first and at the same time segregated into different levels such as highly skilled, skilled, semi-skilled and unskilled.

After Sh.Sharda Prasad, Member Secy. Left for attending another Meeting in Cabinet Secretariat , Sh.K.K.Mittal, Commissioner and Secretary, Assam chaired the meeting. Initiating the discussion , he emphasized that requirement of jobs are needed to be translated to the requirement of skills. He further added that already National Classification of Occupation (NCO) has been done by Ministry of Labour and Employment and the same can be further updated with the help of Industry for inclusion of more occupation in it as per present scenario of industry for inclusion of more occupation in the NCO list . Therefore, there is a need that all the jobs available in the Industry must be classified. He further advised Shri Meena , JDX, to look into the matter for inclusion of more occupation in NCO.

Representative from ILFS suggested that there is a need for intermediate agencies for matching the skills requirement by the Industry and skill training provided by the institutes as in case of Financial Sector where savings are mobalized and loans are given through intermediate agencies. He also added that private be encouraged to setup training activities agencies set up under PPP mode . For ease of operation he also suggested that the whole country may be divided into several regions on geographical regions as per example, East, West, North and South.

Sh.R.L.Singh, Director of Training, informed the members about the functioning of Sector Skills Councils in UK and suggests that the UK experience may be utilized by SSC for creating the data base for skill mapping and skill inventory.

Sh. Amalan, Director, Apex supported the idea of expansion of classification of occupation and informed the sub-committee that all skill levels have already been classified in textile sector. He has also presented a document classifying 429 modules to meet skill requirement in Textile Sector so far and desired that those sill-sets should also find a place in the NCO list..

Summing up the discussion, committee unanimously adopted the following mechanism for establishing system for skill inventory and skill mapping on real time basis

1. Identification & classification of jobs by industry.
2. Identification of skill requirement for different jobs offered in industry.
3. Converting the skill requirement into competency standards.
4. Codification of competency standards as per existing structure of NCO.
5. Putting the data base on web portal Employment Exchanges.
6. Management of web portal by independent bodies.
7. Data Entry to the web portal may be done by all stake holders including intermediates.
8. Promote involvement of intermediaries.
9. Strengthening and modernization of employment exchanges for taking up new assignments.
10. To hire expert agency to assist in deciding the structure of the meta-data for independent agency modes of supply of data, retrieval of information, level of accessibility etc. keeping in view of various users viz. employers, training providers, trainees, policy makers etc. who will use for making informed decisions. They may also suggest requirements of hardware, software and personnel for creation & maintenance.

Minutes of the 3rd Meeting of the Sub-committee of National Skill Development Coordination Board (NSDCB) On "Establishing Institutional Mechanism for providing access to information of Skill Inventory and Skill Map on real time basis"

Venue: Planning Commission
Date: 26.2.2010 9.30 A.M.

The following members were present

1. Prof. S. Sadagopan, Director, IIIT-Bangalore
2. Mr. Sharda Prasad, IAS, DG/JS, DGE&T
3. Mr. K.K. Mittal, IAS, Principal Secretary L&E, Assam
4. Mr. S.J. Amalan, Director, AHI,Bangalore
5. Mr. Eric Jacob, Director, Bangalore Hotel Academy
6. Mr. R.C. M. Reddy,CEO, IL&FS
7. Mr. R. R. Rao,MD, ICRA
8. Mr. K.K.Duggal, Regional Director, Gem & Jewellery Export Promotion Council
9. Ms. Ganga, UID Authority
10. Prof. A. Sibal , Group Medical Director, Apollo Hospitals

Mr. Sharda Prasad welcomed the committee members and set the tone for the meeting and the need for the committee to submit the final report to the Planning Commission at an early date. He also mentioned about the significant progress made by ICRA through the 23 studies that have been under taken on behalf of National Skill Development Corporation.

Prof S. Sadagopan made a brief presentation where he covered the following salient points

- Skill Development is getting the attention from the highest level, namely the Prime Minister of the country; the National Council on Skill Development is headed by the PM himself. The five sub-committees of the NSDCB (under the National Council) are to

strategize the over-arching goal of touching 500 million citizens by 2022

- CII and other industry associations have prepared some study reports. Several consulting organizations including KPMG have also come up with a number of reports dealing with skill development in India.
- UK, USA and Australia are the three countries whose experiences in skill development are most relevant for India
- The existing set up of skill development in India includes the Ministries of labour (both at the Centre and State governments), Director General of Employment and Training, Industrial and Vocational Training Establishments, Certification Agencies and Open Universities.
- ILO and other International Agencies also have several initiatives with focus on skill development. There is even a "World Skills Completion" which is almost an "Olympic Games for skills".
- Countries like USA have institutional mechanism for regular studies on Labour Supply and Demand; the President of USA gets a weekly update on the jobs created / lost. India has neglected systemic studies on Labour on an on-going basis. Countries like UK & Australia focus on "Life Skills" to make every citizen master basic life skills. At this point in time, Indian skill mission is focused on "employable skills" and stresses industry-specific skills (textile, transport, hospitality etc.,)
- There are sector specific initiatives; for example, in the textile sector and the software sector

The committee interprets the scope primarily as follows

- Identify meta-data of skills registry
- Identify meta-data of skills gap
- Create data that is built on meta-data and provide mechanisms for regular and consistent data update by the concerned agencies
- Making information access through trusted, open and public access using the World Wide Web
- Link up the data, the meta-data and employment exchanges

The committee interprets the scope primarily as that of creating a labour / employer market place for skilled labour. In the process the employment exchange serves the purpose of match making while the institutional mechanism will create a market place for skilled labour

The challenges for the sub committee include

- Overwhelming size and scope of the exercise
- Meta-data creations needs intense studies that are unavailable Indian context
- Inapplicability of direct transfer of USA / UK / Australian experiences to the Indian context
- Higher education keeping itself out of skills generation and very limited reach of formal higher education

The emerging opportunities for the sub committee includes the feverish growth of demand for skilled workers in

- Textiles
- Gem & Jewellery
- Real Estate
- BFSI
- Retail
- Automotive
- Hospitality
- Healthcare
- IT / ITES

For sector-specific skill mapping there is a need for a number of studies, all commissioned with a common focus, for all sectors of the economy. In this respect, the ICRA study is the only study that has been done with common focus across 23 industry segments. Studies by CII / NASSCOM / KPMG while useful are not very useable. After the studies are conducted, a number of Workshop / Presentations of the sector specific studies are needed, to create both the common and sector specific meta-data.

For sector-specific skills gap mapping, Industry specific, geographically distributed, time series data and growth projection must be made so that the identified skills and the positions that will open up in each of the category can

be identified. These data must be whetted by the concerned associations as well as the experts in the area. In addition to current practices, the next practices must be identified too. The concerned government departments must help in the data collection. Key employers such as Railways and large industry houses like Tata must be partnered for this exercise.

The Portal design would be the next stage of the institutional mechanism. After capturing the stake holder requirements, the data must be captured using meta-data identified. A well designed portal will help the data capture, validation, update & archiving, and address ownership privacy and access issues as well. The visual design, sustainability and business model must be addressed too. The technology issues of platform hosting and universal access need to be addressed.

To move towards "market making", the Portal should interface with the employment exchanges. With employment exchanges moving towards electronic form, the portal will transform the "e-match making" exercise into the "e-market making" exercise. The skill portal unlike the e-employment exchange should address not only the first job, but ongoing jobs also. *Metric* for success for Portal and ongoing research studies must also be institutionalized.

Finally, the way forward to identify institutions for conducting studies and extensive stake holder consultation for meta-data creation through a number of funded projects and workshops. This step would create the necessary meta-data and meta-data for skills gap. An institute for skill studies within Skill Development Corporation could design, develop and run (in an outsourced manner) the Portal which would be the first call for any skilled worker as well as any potential employer of the skilled worker.

After the presentation by Prof Sadagopan, the ICRA representative made a presentation and also talked of the studies. It was interesting to see a good match between the scope of the sub committee and the out come of the studies.

There was a presentation by Ms. Ganga of UID Authority of India. It appears that the skill portal can significantly benefit from unique ID by the way of identifying the very large number of the potential skilled workers.

Representatives from ILFS and Apollo Hospitals made some very interesting comments and provided valuable insights. ILFS had made

significant contribution by way of training a number of unskilled workers in remote areas at a very short time; this holds a huge promise for India. The Apollo hospitals representative brought out the need for coordination between the different government departments; for example, while there is an acute need for some sophisticated health workers like Dialysis administrators, the health ministry is not helpful in addressing the need to fill this gap.

The IIHA representative talked about a large number of training programs they had undertaken and their work in identifying meta-data and skill gap analysis for their industry.

The Gem & Jewellery sector representative shared their experiences and suggested the need for linking up vocational qualification with educational qualification. This is a common practice with USA, Germany, UK and Australia.

Mr. Sharda Prasad provided critical inputs throughout the three-hour long discussion and also gave several clarifications to all the members who participated in the deliberation.

Mr. Sharda Prasad summarized the proceedings as follows

1. The minutes of the meeting and the draft of the report will be circulated the members by 10.3.2010. The members are requested to give their comments by 17.3.2010. The final report after incorporating the comments will be submitted to the Planning Commission on 26.3.2010

2. The key recommendations would be to get studies conducted on all the sectors of the economy on the lines of ICRA study, preferably after formally establishing "Sector Specific Skill Council". The meta-data of skills identified will be linked to the appropriate NCO / ICO codes. In parallel, the web portal design would be initiated and the portal itself will be used for uploading the data. An institution within DGET, in partnership with a leading an academic institution, would be entrusted with the job of handholding the portal in the formative years and to hand it over the appropriative authority after the operations stabilize.

The meeting ended with vote of thanks to the chair.

LIST OF SIXTEEN MINISTRIES ENGANGED IN SKILL DEVELOPMENT ACTIVIES.

i. Health and Family Welfare
ii. MHRD
iii. Information Technology
iv. Micro, Small and Medium Enterprises
v. Tourism
vi. Urban Development
vii. Urban Employment & Poverty Alleviation
viii. Agro & Rural Industries
ix. Agriculture
x. Textiles
xi. Heavy Industries & Public Enterprises
xii. Food Processing'
xiii. Rural Development
xiv. Social Justice & Empowerment
xv. Tribal Affairs
xvi. Women & Child Development

TRAINING TARGET FOR DIFFERENT MINISTRIES / Department/ Organization

Sl/No	Ministry / Department/ Organization	Present number of institutions	Present training capacity / annum (IN LAKH)	Projected number of trained persons by 2022 (IN LAKH)
1	National Skill Development Corporation	--	--	1500
2	Labour & Employment	33,000	12 .00	1000
3	Tourism	38	00.17	50
4	Textiles	277	00.15	100
5	Transport	1	00.02	300
6	Tribal Affairs	63	00. 06	
7	Rural Development (RUDSETI) and IL & FS	156	05.48	200
8	Women & Child Welfare	68	17.50	100
9	Agriculture	72	19.81	200
10	HRD Higher Education	10,000 (Voc. schools)	19.60	500
	HRD Vocational Education	(Engg. Coll. 2297 Polytechnics 1675)	14.00	
11	Dept of Heavy Industry	*	*	100
12	Urban Development	34	00.013	150
13	Department of Information Technology	1000 (Affiliated centres) + 7 CDAC	01.37	100
14	Food Processing Industries	34	00.10	50
15	Construction Industry Development Council (under Planning Commission)	147	04.64	200
16	Health & Family Welfare	3802	01.35	100
17	Micro Small Medium Enterprise	356	02.92	150
18	Social Justice & Empowerment	Through NGOs & others		50
19	Overseas Indian Affairs	In partnership with MSME / State Government / CII / NGO etc.	00.13	50
20	Finance-Insurance/Banking	*		100
22	Consumer Affairs	*		100
23	Chemicals & Fertilizers	6	00.19	50
24	Others (Power, Petroleum etc.)	NA		150
	Total		99.46	5300

i.e. 53 crore

* At present these Ministries are not directly involved in pre-employment training activities.

Projected manpower requirement by 2015 by CII

S.No	Sector	Demand (in Mn)	Skill Level Break-up
1	Auto	2-2.5	Specialized skills – 5% Skill category level II – 25% Skill category level I – 30% Minimal education skillable – 40%
2	Construction	15	Specialized skills – 2% Skill category level II – 11% Skill category level I – 12% Minimal education skillable – 75%
3	Retail	4-5	Specialised skills – 6-8% Skill category level II – 32-43% Skill category level I – 45-50% Minimal education skillable – 10-15%
4	Healthcare	4-4.5	Specialised skills – 10% Skill category level II – 40% Skill category level I – 16% Minimal education skillable – 34%
5	Banking & Financial services	4.5-5	Specialised skills – 5% Skill category level II – 15% Skill category level I – 65% Minimal education skillable – 15%
6	Creative Industry	0.5 - 0.8	Specialised skills – 5% Skill category level II – 20% Skill category level I – 65% Minimal education skillable – 10%
7	Logistics	Drivers:51 Mn	Warehouse Managers: 8000
	Total	81-83.8Mn	

Projected Incremental Human Resource Requirement by CII by 2022

Sectors	Incremental Human Resources Requirement
Mines and Minerals	1,754,881
Construction	55,199,068
Engineering	1,813,790
Banking and Insurance	3,947,139
Drugs and Pharma	1,383,721
Biotech	1,209,489
Healthcare	20,684,530
Textiles	86,545,390
IT and ITeS	14,806,299
Tourism	12,478,386
Agro and Food Processing	169,782
Paper	57,976
Chemicals and Fertilizers	1,391,948
Total	201,442,899

ICRA STUDY

S.No.	Sector/Industry	Incremental Human Resource Requirement (in lakh)
1.	Electronics and IT Hardware	33
2	IT and ITES	53
3	Gem and Jewellery	47
4	Building, Construction and Real Estate Services	470
5	Auto and Auto Components	350
6	Leather and Leather Goods	45
7	Banking, Finance Services and Insurance	42.5
8	Furniture and Furnishing	34
9	Textile and Clothing	262
10.	Organized Retails	173
	Total	1510

NATIONAL CLASSIFICATION OF OCCUPATIONS

Background

Indian National Classification of Occupation presents the average picture of occupations available in Indian economy. The occupations in NCO are classified, codified and described in a systematic manner for the benefit of users for various purposes. The first effort in the direction of preparing an occupational classification system namely "Guide to Occupational Classification" was brought out in 1946. This guide contained not only the classification of occupations but also contained instructions for carrying out of day-to-day work at the Employment Exchanges, such as: registration of applicants, documentation of vacancies, compilation of statistical data, etc. It was an industrially biased classification and was framed after the British pattern. After that for facilitating international comparability of occupational data NCO-1958 was brought out on the pattern of International Labour Organisation's (ILO) publication "International Standard Classification of Occupations (ISCO)" in 1958. NCO was evolved subsequently on the basis of ISCO-69 and ISCO-1988. The recent version of NCO-2004 has been patterned after ISCO-88 with twin principle of Skill Level and Type of work performed.

Objectives of NCO

1. Registration of Job seekers at the employment exchanges for placement and vocational guidance.
2. Documentation of vacancies notified to the Employment Exchanges for matching and referral, vacancy clearing, job development and placement.
3. Development of vocational and apprenticeship training programmes.
4. Vocational guidance and employment counseling to the job seekers.
5. Collection and compilation of manpower data by various agencies like Planning Commission, Registrar General of India, Central Statistical Organization, National Sample Survey Organization etc.
6. Collection and compilation of occupational data collected by the D.G.E.&T. under the provisions of the Employment Exchanges (Compulsory Notification of Vacancies) Act. 1959.

Need for revision of NCO

- Up-dation of the Occupational Classification system through addition of emerging and deletion of obsolete occupations
- Classifying occupations on the basis of skill level and similarity of work performed
- Make the classification system compatible with International standards

SALIENT FEATURES OF NCO-2004

- NCO-2004 covers only civilian occupations of Indian economy. The document contains details of 2945 civilian occupations. It is possible that few occupations might not have been covered or described adequately.
- Driving principle of 'Skill Level' has been used in addition to 'Type of Work Performed' in the NCO-2004.
- NCO-2004 has five levels of aggregation as against four levels of aggregation in NCO-68.
- The 6 digit Code Structure has been designed in such a manner that unreported or newly emerged occupations can be suitably accommodated without disturbing the basic Code Structure.
- Sub-divisions, Groups and Families can be enlarged to accommodate new sectors of economy.
- Conversion Table has been given to correlate data prepared on the basis of NCO-68 with NCO-2004.
- Concordance Table has been given to find correspondence between NCO-2004 and NCO-68 and vice-versa.
- Alphabetical index has been given for easy identification of occupation as well as finding correspondence between NCO-68 and NCO-2004.

International Perspective on Managing the Skill Inventory and Skill Gap

Role of Sector Skills Council in UK for bridging the gap between Skill supply and skill map

Sector Skills Councils (SSCs) are state-sponsored, employer-led organizations that cover specific economic sectors in the United Kingdom. They have four key goals:

- to reduce skill gaps and shortages
- to improve productivity
- to boost the of skills their sector workforces
- Ensuring authoritative labour market information for their sectors;

Developing national occupational standards and ensuring qualifications meet employer needs.

SSCs achieve these aims by contributing to the development of National Occupational Standards, the design and approval of Apprenticeship frameworks, brokering Sector Skills Agreements and creating Sector Qualifications Strategies. There are currently twenty –five SSCS, covering about 85 per cent of the British workforce; SSCs are licensed by the Government through the UK Commissio9n for Employment and Skills (UKCES).

The Sector Skills Development Agency (SSDA) was formerly responsible for funding, supporting and monitoring SSCs and for overseeing industries that fell outside an SSC footprint. From 1st April 2008, the SSDA was replaced by the UKCES and the Alliance of Sector Skills Councils comprising all 25 Sector Skills Councils (SSCs). The full extent of the Alliance's scope will develop over time, but its core purpose is to:

- Promote understanding of the role of SSCs within the skills system across the four home nations;

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- Co-ordinate policy positions and strategic work on skills with stakeholders across England, Scotland, Wales and Northern Ireland; and
- Help build the performance capability of the Sector Skills Councils, to ensure they continue to work effectively with the employer-driven skills agenda.

How SSCs ensure authoritative labour market information for their sectors.

The UK Commission set the framework within which SSCs carry out their sectoral work on LMI, and will ensure that there is no unnecessary duplication or overlap of LMI collection and analysis by SSCs. SSCs will have the primary role in the collection, analysis and effective communication of up –to- date labour market information and intelligence on their individual sectors. SSCs must demonstrate an extensive understanding of the current and future skill needs across the UK of their sector's employers. SSCs work needs to be founded on an information base that is rigorous, authoritative, strategic and forward looking.

To enable consistency and comparability across sectors and nations, SSCs must use the common LMI framework developed by the SSDA for collection and analyzing LMI.

The key elements of the common LMI framework are summarized below:

- Sector Analysis and Skills Priorities
  SSCs must base intelligence on high quality, robust research evidence.
- SSCs must use robust national datasets and survey evidence and produce comparable, consistent LMI which can be benchmarked. Sector data should be compared against the UK average, with comparisons also made between the four UK nations and also between regions, as well as internationally where available. Analysis must cover the whole of the SSC footprint and, where appropriate, data should be disaggregated by sub-sector.SSC should contextualize and supplement this data with additional sector analysis.
- SSCs should make use of the full range of secondary evidence sources (both qualitative and quantitative) in order to ensure that existing knowledge is properly used.

- SSCs should also undertake their own original primary research to address any research gaps. SSCs will need to produce thorough and rigorous skills needs assessments base on their research, which are regularly updated.

- SSCs must distil the current and future skills priorities in their sectors form the research evidence. Priorities must be tailored effectively so they are appropriate to the specific needs of employers.

Role of SSCs in developing national occupational standards and ensuring qualifications meet employer needs:

The SSC core remit includes the responsibility to ensure that all national occupational standards, qualifications and apprenticeships are:

- Informed by current and future skills needs as articulated by employers in their sectors;
- Based on rigorous, high quality LMI that is regularly refreshed;
- Informed by public policy relating to education and qualifications of the home nation for which it is being developed (see Annex 1).
- National Occupational Standards (INS) SSCs will continue to take the lead role in developing, maintaining and updating National Occupational Standards in the context of each nation's priorities, NOS underpin Vocational Qualifications (VQS) and can be used for a variety of purposed within the workplace, including job descriptions and staff appraisals, SSCs are responsible for ensuring that NOS are up to date, reflect best practice and are of a high quality. They must be available in all the industry sectors they cover according to demand and additionally for ensuring that there are collaborative systems in place to meet employer needs for generic NOS.
- Qualification and framework reform

SSCs will ensure through the development of a sector qualification strategy the right type, quality and volume of economically valuable qualifications exist at all levels in the system. This should be driven by evidenced employer demand including generic as well as sector specific skills needs.