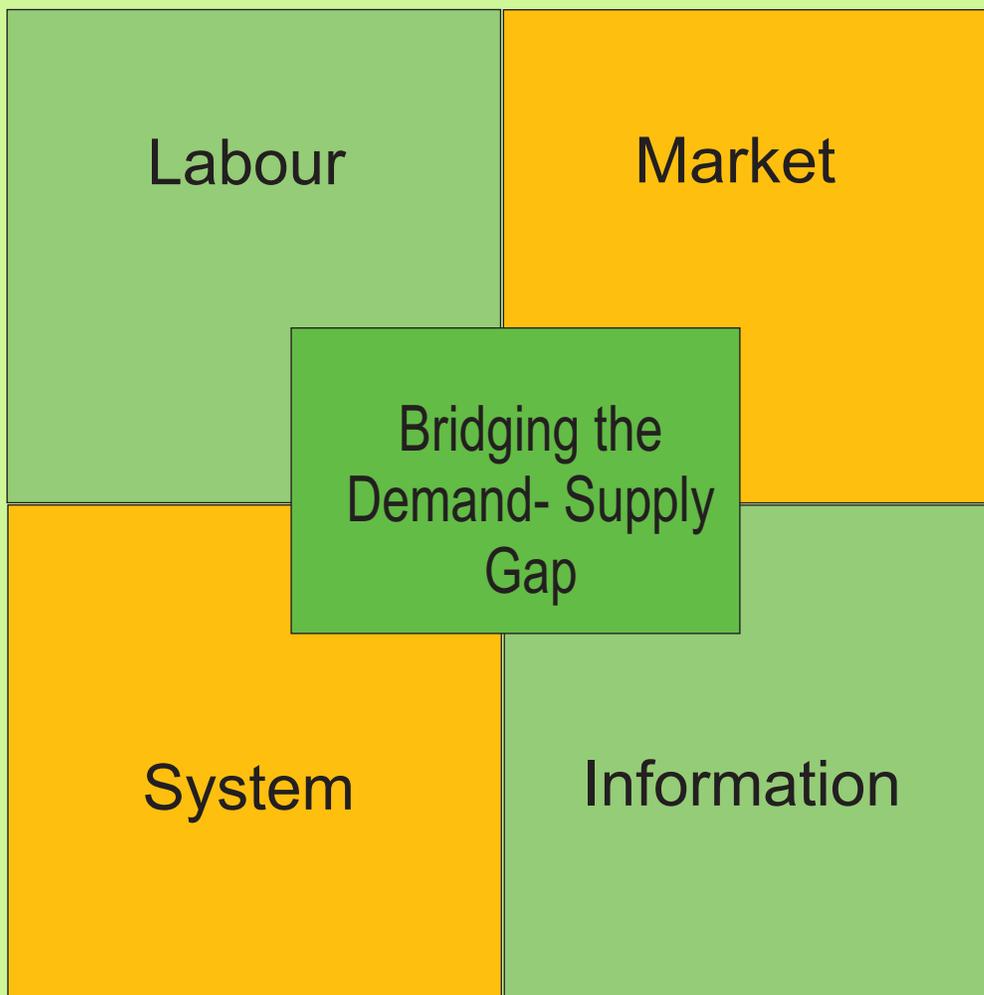




ASCI
Agriculture Skill Council of India

Labour Market Information System

A Report on Labour Market Information System Agriculture Skill Council of India



***LABOUR MARKET
INFORMATION SYSTEM***

Contents

KEY WORDS:	1
INDIAN DEMOGRAPHY:	1
LABOUR MARKET INFORMATION SYSTEM (LMIS).....	1
Definition.....	2
Objectives.....	2
Components of LMIS.....	2
LMIS FOLLOWED BELOW THEMES	3
Issues need to be addressed while developing LMIS in India	3
KEY LEADING PRACTICES ACROSS THE GLOBE:	4
STAKE HOLDERS ANALYSIS:	4
STAGES OF LMIS DESIGN	5
POLICY QUESTIONS ADDRESSED BY LMIS.....	6
Student as stake holder	6
Employers as stake holder	6
Training provider as Stake holder	6
Government and policy makers as Stake holder	6
Sectoral bodies as stake holder.....	7
Researcher as stake holder	7
MULTIPLE SOURCES OF INPUT DATA AND ITS USABILITY.....	7
ROLES, RESPONSIBILITIES AND THEIR FUNCTIONS	8
BASIC ASSUMPTIONS NEED TO BE TAKEN BEFORE DESIGNING LMIS:	8
HIGHLIGHTS OF AGRICULTURE LABOUR IN INDIA:.....	8
LABOUR MARKET DYNAMICS:	8
India's Labour Supply:.....	9
Lack of Vocational Training is a hurdle for India's Youth:.....	10
India's Labour Demand:.....	12
EMPLOYMENT PROJECTION ACCORDING TO 12 TH YEAR PLAN:	14
SOME BASIC TRENDS THAT AFFECTS LABOUR MARKET OF INDIA	15
CONCLUSION:	16

KEY WORDS:

Labour Market Data: Quantitative and statistical LMI, excluding qualitative information.

Labour Market Indicators: Several signals, which, when processed together, imply a trend or direction to derive labour market information.

Labour Market Information Analysis: The processes whereby labour market information is reviewed manipulated and related to other sources of information in order to identify trends, directions and needs.

Database: Collection of organized quantitative and qualitative data which can be used manipulated and updated easily.

Web portal: A web portal is a website that brings information together from dependent or independent sources including from other websites and databases, in a uniform way, intended for public use.

Indian Demography

Evolving demographics unambiguously point out that India will remain a young nation and the largest contributor to the global workforce over the next few decades. India will have the largest number of people in the working age group of 15-59 years. A young population is India's demographic dividend. It gives India the potential to become a global production hub as well as a large consumer of goods and services. As on 2010, half of India's population is below 25 years of age, and 62 per cent of its population is in the working-age group. India, thus, accounts for 17.5 per cent of the world's total working-age population. From 2010 to 2030, India's total working-age population is poised to rise from 749 million to 962 million, accounting for about 28 per cent of the increase in the world's total working-age population over the period (Source: UN World Population Prospects, 2008 Revision). Although investment, reforms and infrastructure are likely drivers of India's economic growth, no growth driver is as certain as the availability of people in India's working-age group.

LABOUR MARKET INFORMATION SYSTEM (LMIS)

The Labour market information system provides quantitative and qualitative information and intelligence on the labour market that can assist labour market agents in making informed plans, choices, and decisions related to their business requirements, career planning, education and training offerings, job search, recruitment, labour policies and

workforce investment strategies.

The ASCI will work towards identifying the skill gaps, the skill gap analysis, the job role availability, occupational standards of the workforce, and then mapping all these information in the form of an internet tool to create LMIS for Agriculture.

Definition

- An LMIS is a set of institutional arrangements, procedures and mechanisms that are designed to produce labour market information.

Objectives

- To improve the flow of data and information to employers and jobseekers, to improve planning for the supply of skills, and maximizing business potential.
- A unified LMIS to promote the state led programmes and schemes.
- To provide a portal for cutting-edge and timely market and workforce data, Fast access to labour market data.
- Aides companies in key decision making processes.
- Forecasting and trend analysis. To respond to rapidly changing environment.
- For generation of customised reports from system
- To reduce gap between labour supply and demand

Components of LMIS

- Users - individuals and organisations;
- Students and young people
- Policy makers and planners
- Education and training providers
- Employers
- Unions
- Community groups and civil society organizations
- Sources of signals, indicators and intelligence;
- System managers, data gatherers, operators and analysts;
- Labour market information (LMI) itself;
- Methodology of data collection and analysis;
- Equipment - computers and other hardware;
- Processing software;

- Means of communication, including public media;
- Financial resources;
- Sub-systems:
 - ✚ Training for system staff and end users
 - ✚ Feedback and evaluation;
 - ✚ Research, development and publications.

LMIS FOLLOWED BELOW THEMES

- User interfaces and the institutional arrangements
- Labour market information and analysis available for the users
- The sources of labour market information and data flows in the LMIS
- The standards followed while collecting and analysing LMI

Issues need to be addressed while developing LMIS in India

- Inefficiencies in the sharing of information, unclear lines of responsibility, and unhelpful competition among different bodies. So, establishing an agreed single lead institution to oversee the LMIS is challenging.
- Develop a clear and detailed set of priorities for LMI, information and data needs of the relevant user groups to establish agreement among key stakeholders.
- User-friendly portal, early priority should be to understand the different users of LMI and the ways in which their needs can be met, cater to a broad range of requirements.
- Since different organisations are responsible for collecting data for LMIS, which can often be of a sensitive nature, stakeholder engagement is key to ensure that the flows of information are maintained and that the organisations involved can trust that their information will be treated securely and sensitively.
- Frequency of updating data in LMIS considering timeliness and accuracy.
- Information from different sources should follow standard of classification.
- To ensure that geographical and sectoral distinctions can be addressed by data segregation.
- Large internal migration flows is a challenge.
- Providing public access of single interface to provide data and information drawn from common information system initially will take time in labour market.
- Indian stakeholders' perceptions about information availability, information flows and the

institutional arrangements in the current LMIS in India

- Reliability and issues with the demand and supply related data
- Existing datasets that are of limited value for skills planning.
- Piecemeal and ad hoc assessment of employer demand for skills
- The existence of many informal courses without affiliation to central bodies for which data is not collected.
- Indian stakeholders often lack a comprehensive understanding of the structure and components of an LMI system. (perceive LMIS as IT rather a comprehensive set of arrangements, technology platforms, data sets and information flows)
- List of experts or expert providing agencies for Train the Trainer.

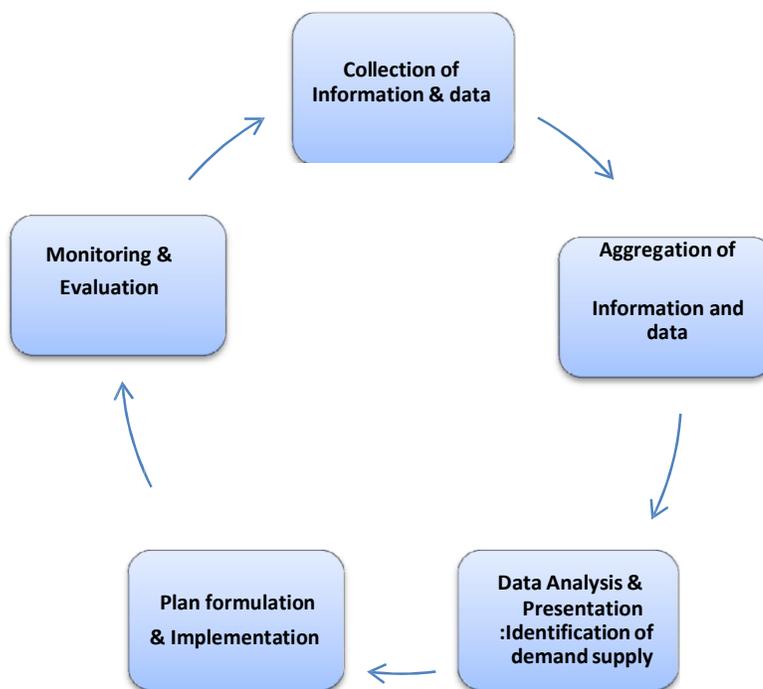
KEY LEADING PRACTICES ACROSS THE GLOBE:

- Govt ownership
- One-stop-shop for all users(single web portal)
- User friendly features(for data inputs and information access)
- Efficient data management(data classification and collection)
- Easy accessibility(target dissemination)

STAKE HOLDERS ANALYSIS:

- Providing critical information to different stakeholders for different purposes and therefore understanding stake holders' needs, expectation and issues is critical.
- List of stake holders who are involved in labour market ecosystem
 1. Policy makers
 2. Govt (state and central)
 3. NGO
 4. Industry
 5. Employers
 6. Intermediaries including counsellors, career facilitators.
 7. Training institutes
 8. Students, job seekers, employees
 9. Assessing agencies

STAGES OF LMIS DESIGN



POLICY QUESTIONS ADDRESSED BY LMIS

To establish clear priorities in terms of the uses that will affect structural and methodological decisions.

Student as stake holder

- What are the courses that providers offer to students in which they are interested in?
- How many others will be/have been doing the same or similar qualification?
- How many of those enroll complete the course?
- How qualified are the teachers and what are the class sizes?
- What sort of jobs do the graduates get and how long does it take them to find a job?

Employers as stake holder

- How many new graduates will be available in a year?
- Will employers obtain the numbers of particular skills and qualifications they need?
- Which training institutions currently offer programs for a particular industry?

Training provider as Stake holder

- What is the quantity of a particular set of skills from different providers in their region?
- What are the pass and dropout rates of different Technical Vocational Education and Training (TVET) institutions?
- What is the cost per graduate in comparable courses across institutions?
- What are the qualifications of teaching staff?

Government and policy makers as Stake holder

- How many potential new workers will be available at a point of time with a particular set of skills in each region?
- Does the skill and geographic pattern of supply of graduates match well with what is known about demand?
- What is the dropout rate from courses?
- How well qualified are the teachers?
- What is the cost of training per person?
- Are some TVET providers giving better value for money than others?
- How well do graduates perform in the labour market once qualified?

Sectoral bodies as stake holder

- What is the demand and supply of labour force in a particular sector?
- What are skill levels of labour working in particular sector?

Researcher as stake holder

- Is the LMIS adequately able to anticipate future skill needs of different stakeholders?
- Is the LMI reports generated user friendly?
- How is the nature of jobs changing with introduction of new technology?

MULTIPLE SOURCES OF INPUT DATA AND ITS USABILITY

PARAMETERS	SOURCES	GAP
Occupational & qualification structure at national, state, district level	DGET, Central Statistics Organization, Annual survey of Industries, Population census,	Inadequate information
Occupational data on the annual demand	Ministry of Overseas Indian Affairs	Lack of linkage with placement agencies involved in overseas employment and employees. Lack of info of overseas demand for labour.
Demographic replacement	National Sample Survey Organisation	Irregular update
Average demand for the new jobs in organized and unorganized sectors	Department of Industries (state level)	Disconnect in aggregation of national and state level data
Other data	Ministry of Finance, National Accounts, Population Census	Lack of base data for informal sector

- The report and statistics made available by multilateral institutions are considered reliable and accurate.
- The in-house data was considered accessible, reliable, accurate and timely by the stakeholders.
- Govt ministries data is accurate but not easily accessible
- NSDC skill gap studies on state and sector specific are useful but are based on limited data.
- NSSO data is reliable and easily available but in a raw format ,need expertise to analyze
- Industry data is accurate, timely, reliable, easily accessible but data is broad (not so specific).
- Data from Trade Union Members is not considered representative and seldom used but collected on ad-hoc basis depending on need.
- Data from Labour Bureau can be treated as reliable and accurate
- National Technical Manpower Information Systems (IAMR and AICTE) reliable but limited scope
- Population Census suffers a time lag of 10 years.

ROLES, RESPONSIBILITIES AND THEIR FUNCTIONS

- Clear leadership in terms of a national body or stated policy on LMI to coordinate the labour market information related activities of different stakeholders and formation of consensus around different indicators, data sets and mechanisms for collection, analysis and reporting of the labour market information system.
- Specific division for data collection and collation
- Specific division for analyse and report data
- Specific division for overall management of the system
- Specific division for mechanism for information dissemination and sharing.

BASIC ASSUMPTIONS NEED TO BE TAKEN BEFORE DESIGNING LMIS:

- Development of the LMIS will be carried out by existing institutions without complicating by creating new institutions.
- While choosing institutions from existing ones for LMIS, institutions should be fitted to the objectives, rather than vice versa.
- It was announced that NSDA will do the role of nodal agency for Sector Skills Councils.

HIGHLIGHTS OF AGRICULTURE LABOUR IN INDIA:

- Employment in Agriculture is extremely irregular
- Under employment, under-development and surplus population lead to low wage and excessive burden
- Low income and limited options of livelihood due to lack of skill training
- Seasonal unemployment
- Agriculture labourers are scattered.
- Agriculture labourers work in unorganised sector
- Low social status.
- They have less bargaining powers.

LABOUR MARKET DYNAMICS:

Integration of world economies post liberalisation and globalisation has grown the element of competition in Indian market causing to affect its labour market. Production based occupations have been replaced by knowledge and information based occupations. As per the survey of the National Sample Survey Office (NSSO) in 2011, 51 per cent of the India's total workforce are self-employed, only around 15.6 per cent are 'regular wage/salaried' employees and 33.5 per cent are casual labours. A negative growth in govt. sector is manifested due to sprawling private sectors. As economic growth resulted in availability of various job opportunities causing marginalization of workforce in agriculture, agriculture sector did not grow at the same pace.

Rural	1993-94	1999-00	2004-05	2009-10
Self-employed	58	55.8	60.2	54.2
All wage workers	42	44.2	39.9	45.9
Regular	6.4	6.8	7.1	7.3
Casual	35.6	37.4	32.8	38.6

Source: NSSO

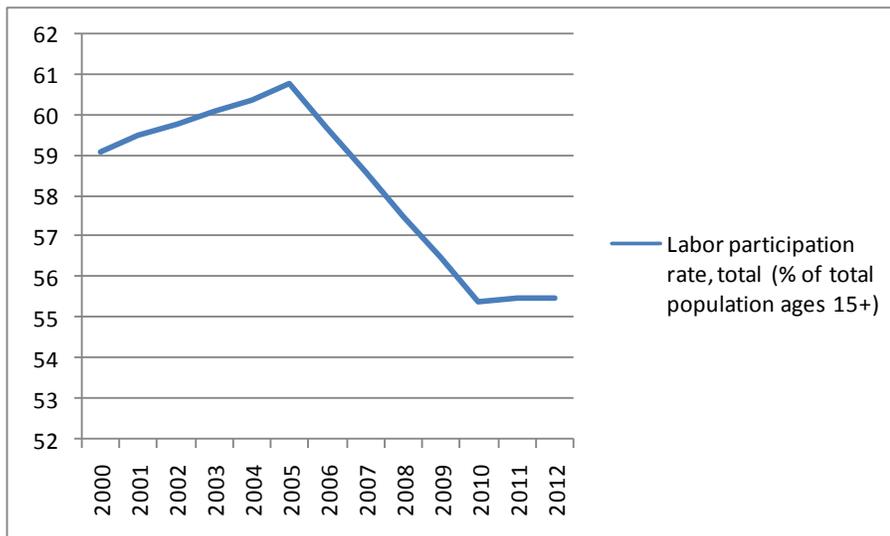
Percentage distribution of all workers by status of employment in rural India

Increase in regular wage workers is a welcome development. Although it is difficult to expect a massive increase in job creation in this category due to increased casualisation and crunching out of the self-employed category. Unless adequate interventions are made to encourage self-employment, it will be difficult to reduce unemployment rate. There is a huge gap in demand and supply of labour in agriculture due to lack of skill. The employment in agriculture sector is reducing where as an increasing trend in service and industry (secondary and tertiary) sector is observed as indicated in the graph. The educational and skill profile of Indian workforce was very poor and primarily responsible for its low productivity. The increasing trend of employment in secondary and tertiary sector shows the shifting of labour force from primary sector.

India's Labour Supply

According to the National Sample Survey Organisation's (NSSO) latest large-sample survey in 2004-05, India's labour-force participation rate was a mere 61 per cent for that year. The balance 39 per cent of the working-age population, consisting mostly of women, kept away from the workforce for various reasons such as studying further (9.3 per cent), raising children and managing households (15.9 per cent), or engaging themselves in other household duties (12.1 per cent).

According to Census of India's population projections, Uttar Pradesh, Bihar, Madhya Pradesh and Rajasthan will account for more than 50 per cent of the increase in India's working age population over 2011 to 2021. These states, also the poorest four states among the 15 major states, based on per capita income (Net Domestic Product), would add 54 million to India's workforce, whereas the four most affluent states - Haryana, Maharashtra, Punjab and Gujarat - would together add only 21.6 million to the workforce. The maximum increase in working-age population will therefore take place in states that are the poorest and offer the lowest employment opportunity.



Source: World Bank

Trend of Labour Force Participation Rate

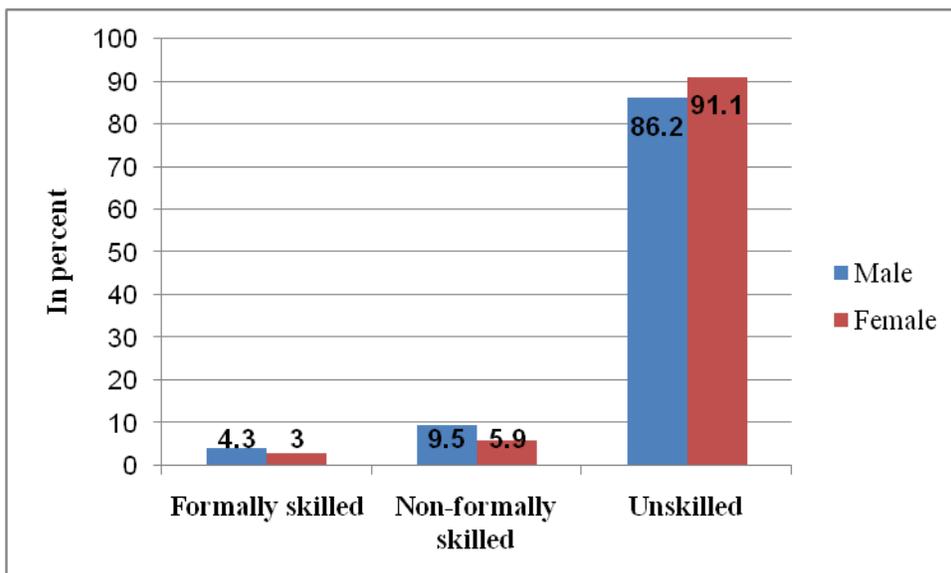
Labor Force Participation Rate (LFPR) is a measure of the active portion of an economy's labor force. The participation rate refers to the number of people who are either employed or are actively looking for work. During an economic recession, many workers often get discouraged and stop looking for employment, as a result, the participation rate decreases. One of the reasons for decrease in employment during 2004-2009 is due to low labour force participation rate during this period.

The participation rate and unemployment data should be observed in tandem to give a better understanding of the overall employment status. The participation rate is important in analyzing the unemployment rate. Those who have no interest in working are not included in the participation rate but are included in the unemployment rate.

The agriculture sector recorded satisfactory growth due to improved technology, irrigation, inputs and pricing policies. Livestock, poultry, fisheries and horticulture are surging ahead in production growth in recent years and will have greater demand in the future. Industrial and service sectors have expanded faster than agriculture sector resulting in declining share of agriculture in national accounts. Despite the structural change, agriculture still remains a key sector, providing both employment and livelihood opportunities to more than 70 percent of the country's population who live in rural areas. The contribution of small farmers to the national and household food security has been steadily increasing

Lack of vocational training is a hurdle for India's youth

In 2004-05, only 28 million of India's 257 million job-seeking population in the age group of 15-29 received any form of vocational training. And, only 9 million of these 28 million received formal vocational training from training institutes; the others acquired skills informally from their preceding generation or other household members

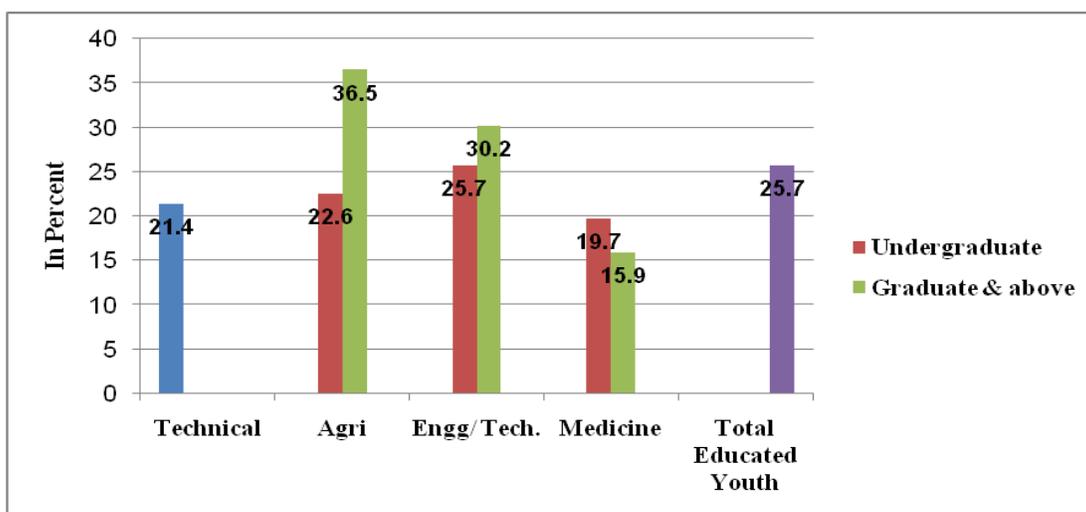


Source: NSSO, 61st Round, 2004-05

Percentage of Youth Population with Vocational Training

As on 2004-05, only 78 million of the 257 million youth were qualified in the secondary level - 10th grade or above. Only 23 per cent of these qualified youth held at least a diploma or a graduate degree. Even within this minority of graduate youth, a large proportion remained unemployed. During the economic upturn in the past decade, unemployment was the highest for diploma and certificate holders, followed closely by graduates and postgraduates. More than 30 per cent of India's engineering postgraduate diploma holders were unemployed. This implies that, despite sufficient educational qualification, the workforce does not have skills that are required by the job market.

Only a minority of Indian youth receive education up to degree or diploma level and a significant proportion of these youth are unemployed. An employable individual is one who has the necessary skill sets to undertake a job, requiring minimal additional training.

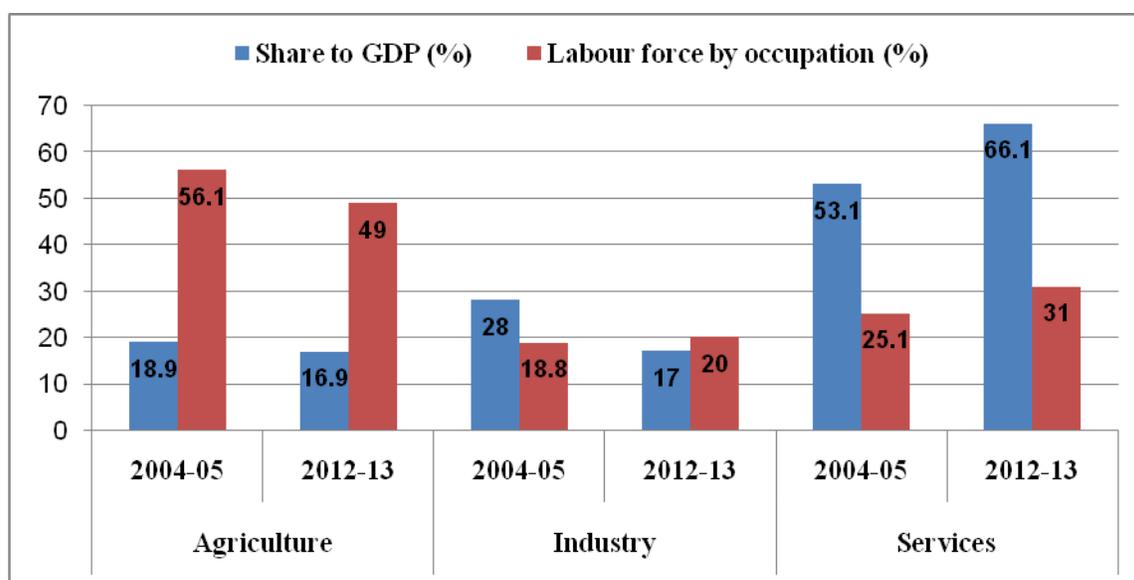


Source: NSSO, 61st Round, 2004-05

Unemployment Rates among Educated Youth

India's labour demand

When an economy is in the initial stages of development, the share of the agriculture sector tends to be high. Then, the share of industry increases, and eventually, services account for a dominant share of the GDP. In this pattern of economic development, labour is transferred from agriculture to industry and finally to services. India's pattern of economic development has, however, been quite unconventional. The share of agriculture in India's GDP came down sharply from 18.9 per cent in 2004-05 to 16.9 percent in 2012-13. Agriculture's contribution to total employment, however, reduced narrowly from 56.1 per cent to 49 per cent. The share of industry has reduced by 9 percent whereas that of services share in GDP rose by over 13 percent. The labour force by occupation in agriculture has shown a decline where as there is increase in labour force in industry as well as service sector by 6 percent & 2 percent respectively. Thus, around half of India's total employed population remains occupied in agriculture.

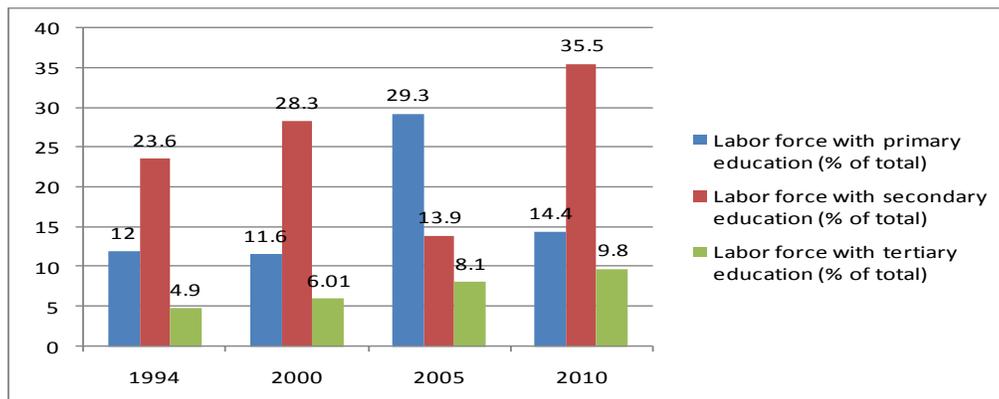


Source: Central Statistical Organization, NSSO, CIA World Fact Book

Share of Major Sectors in GDP & Employment

The low level of general education corresponds to the continuing high share of those engaged in agriculture and even higher share of the total population that lives in rural areas. Economic growth should entail a transition of labour out of agriculture into manufacturing, nonmanufacturing industry and services (Mehrotra et al 2012). Low levels of education in the labour force, especially among those engaged in agriculture, makes it more difficult for the latter to move into activities in urban areas, except as labourers in the construction industry. The low level of general education also makes it more difficult to provide vocational training to youth who have not even completed elementary education (i.e. until class 8). The labour market outcomes affected by education are diverse and there are various pathways through which education operates when generating this type of effects. Wages and earnings; employment/ unemployment; worker productivity; hours worked; nature of work; worker's health; and

fringe benefits are some key indicators that relate labour market and education level of labor force. Below graph shows the educational status of India's labour force.



Source: International Labour Organisation (2010)

Labour force distribution according to education level

Although the labour force growth is projected to decelerate, the absolute increase in the labour force is very large. In fact, India's demographic profile is such that the expansion in the labour force in India will be larger than in the industrialized countries. In developing countries where the population density and growth is also highest, face unprecedented challenges in their capacity to access public resources and family resources, stemmed from waves of cultural and economic globalisation.

Growth rates (% per annum) and absolute increase ('000)					
	Basis	1993-94 to 2004-05*	2004-05 to 2006-07	2006-07 to 2011-12	2011-12 to 2016-17
Growth Rate in Population (age 0+)		1.85	1.43	1.37	1.22
Growth Rate in Population (age 15-59)		2.42	2.29	2.04	1.54
Growth Rate in Labour Force	UPSS	2.01	1.99	1.92	1.59
Growth Rate in Labour Force	CDS	2.09	2.02	1.96	1.62
Growth Rate in Employment Opportunities	CDS	1.87	1.98	2.73	2.40
Addition to Population ('000)	UPSS	199154	35483	79658	75271
Addition to Labour Force ('000)	UPSS	92600	21410	49180	44600
Addition to Labour Force ('000)	CDS	85450	19301	44711	40398
Addition to Employment Opportunities ('000)	CDS	70978	17330	58072	57893

Source: Derived from NSS

UPSS Basis: Usual Principal and Subsidiary Status Basis.

CDS Basis: Current daily Status Basis.

Projected Population, Labour Force, and Employment in Different Periods

TYPE OF AGRI-INDUSTRY	Public sector	Private sector	Total of Public and private
Growing of crops; market gardening; horticulture	1976	1934	3910
Farming of animals	956	139	1095
Growing of crops combined with farming of animals	27	16	43
Agricultural and animal husbandry service activities	2512	602	3114
Hunting, trapping and game propagation including related service activities	12	0	12
Total agriculture, hunting and related service activities	5483	2691	8174
Forestry, logging and related services activities	1542	93	1635
Agriculture hunting and forestry	7025	2784	9809
Fishing operation of fish hatcheries and fish farms; service activities incidental to fishing	633	34	667

Source: Directorate General of Employment & Training (DGE&T: Annual Employment Review, 2011)

Number of establishments in public and private sector

The demographic displacement should also be captured in LMIS to help the policy makers while designing any kind of policy or, scheme related to labour force.

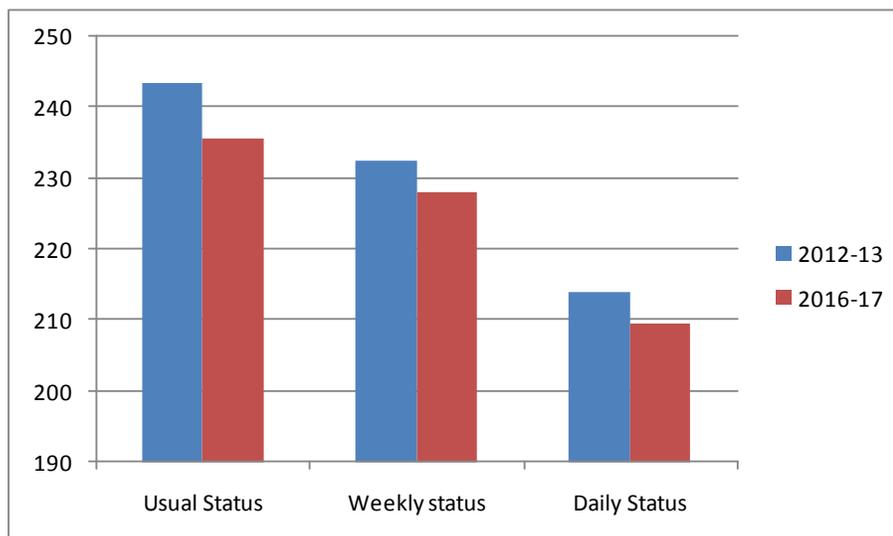
Category of out-migrant	present place of residence					
	same state		same state	out-side the state	within the country	another country
	within same district	another district				
Rural area						
Male	17.3	29.3	46.6	45.8	92.4	7.2
Female	61.4	27.6	89	10.2	99.2	0.7
Urban area						
Male	14.3	35.6	49.9	33.3	83.2	15.9
Female	42.5	37.2	79.7	17.6	97.3	2.7

Source: National Sample Survey Organization (2010c), 64th Round, Report No. 533

Distribution of out-migrant by present place of residence

EMPLOYMENT PROJECTION ACCORDING TO 12TH YEAR PLAN:

The desired employment percentage in Agriculture at the beginning and at the end of the 12th Plan is expected to be 50% and 45% respectively according to planning commission report. Below graph shows projection of employment in millions in agriculture sector.

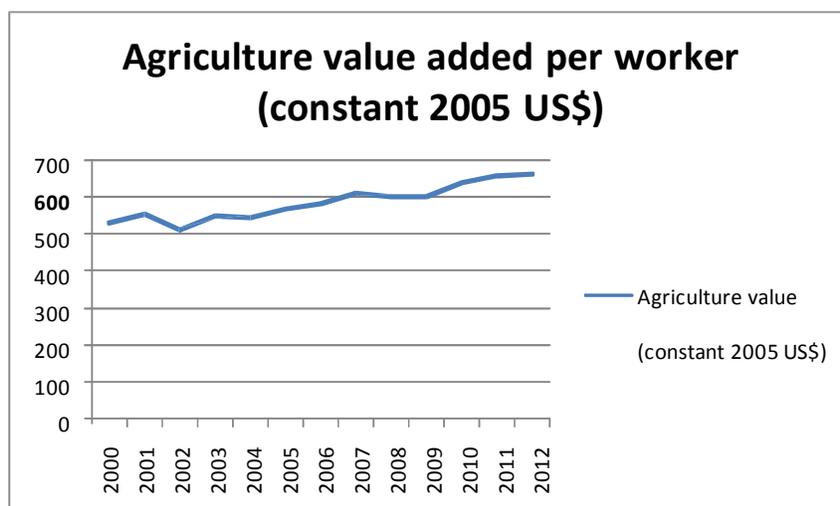


Source: 12th Year Plan Planning Commission

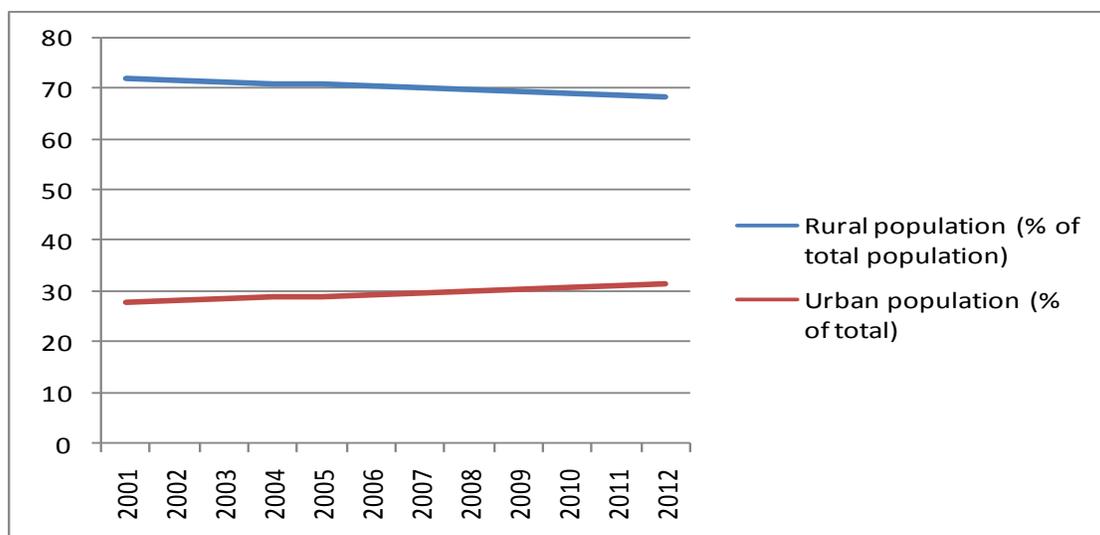
Projection of Employment in millions in Agriculture

Basic objective of 12th five year plan while creating employment is productive employment. In order to achieve the objective two kind of transition is needed: first, movement of unskilled labour from agriculture to unorganized industry or unorganized services; second, and movement of labour from informal employment in the unorganized sectors to either formal employment in organized sectors (preferably), or at least informal employment in the organized sectors

SOME BASIC TRENDS THAT AFFECTS LABOUR MARKET OF INDIA



Source: World Bank



Source: World Bank

Rural Population and Urban Population trend

Age-group	Rural		Urban	
	Female	Male	Female	Male
Age 15 & above	47.5	71.8	74.6	88.7
Age 7 & above	56.7	77.0	78.1	89.9
Age 5 & above	57.3	76.8	78.1	89.7
All age (age 0 & above)	51.1	68.4	71.6	82.2
All ages (age 0 & above): NSS 42nd Round (1986-87)	24.8	47.6	59.1	74.0

Source: National Sample Survey Organization (2010b), 64th Round, Report No. 532

Literacy rate age and gender wise

CONCLUSION:

There were a number of organisations that either collated and published or estimated the manpower need in various sectors of the economy. Given that India followed an elaborate planning system, and as part of the process of development of the five-year plan, inputs were sought from various stakeholders as to the need for different levels of manpower in the country over the five years that the plan sought to address. If we were to look at the broad requirements of a LMIS, one that would cover labour market conditions, demand supply trends and requirement, composition and characteristics of labour supply, projection of future demand, and industry employment trends over time, then we would see that analysis and interpretation of these trends were covered in the studies. Data relating to education and training resources, particularly relating to private sector initiatives, geographical spread of employment and Industry, occupational characteristics and supply, and wage information were difficult to incorporate in full in these initial studies.

LMIS can help in educational planning to strengthen the work force of Agriculture sector by highlighting below points:

- Substantial gap between supply and demand gaps in Dairy, fisheries and horticulture which are future engines of growth in agriculture sector
- Adequacy of present educational facilities considering future demand of work force and production.
- The quality of education can be captured by analyzing the pool of agriculturally qualified personnel.
- Skill gap analysis can be done and corrective measures can be taken to improve the skill which is in demand and crucial for growth and production.
- It can help in reducing the information asymmetry
- It can help the researchers for their secondary research by reducing effort of going to different sources for secondary data.
- It will help Pro-active policy making.
- Establishing synergies between various stakeholders.

Developing Indian agriculture sector from traditional sector to robust modern sector require an intensification and market orientation of agriculture on one hand and a diversification of economy through a proliferation of non- agriculture sectors on the other hand